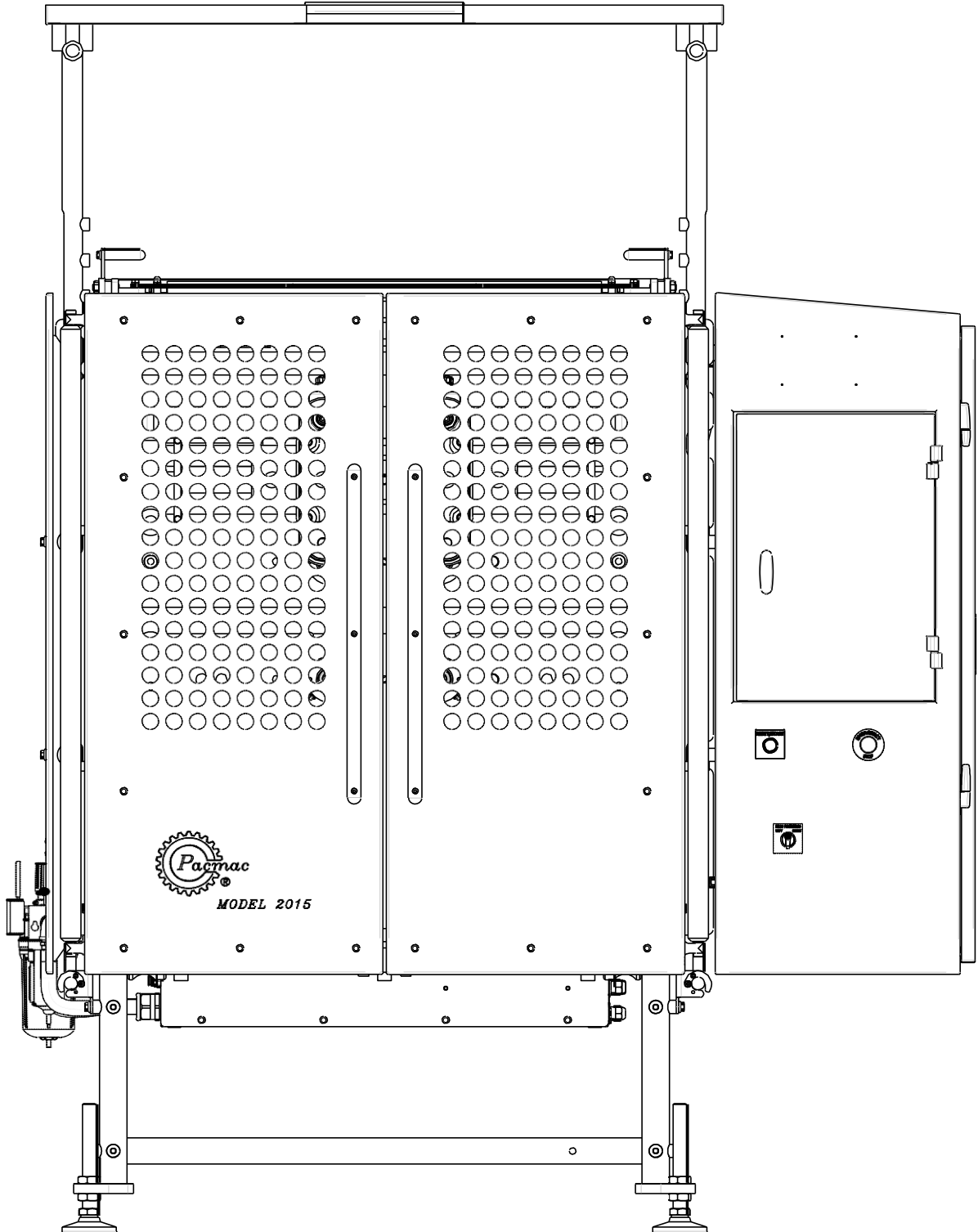


# Pacmac Model 2015

## OPERATIONS MANUAL

V2.0





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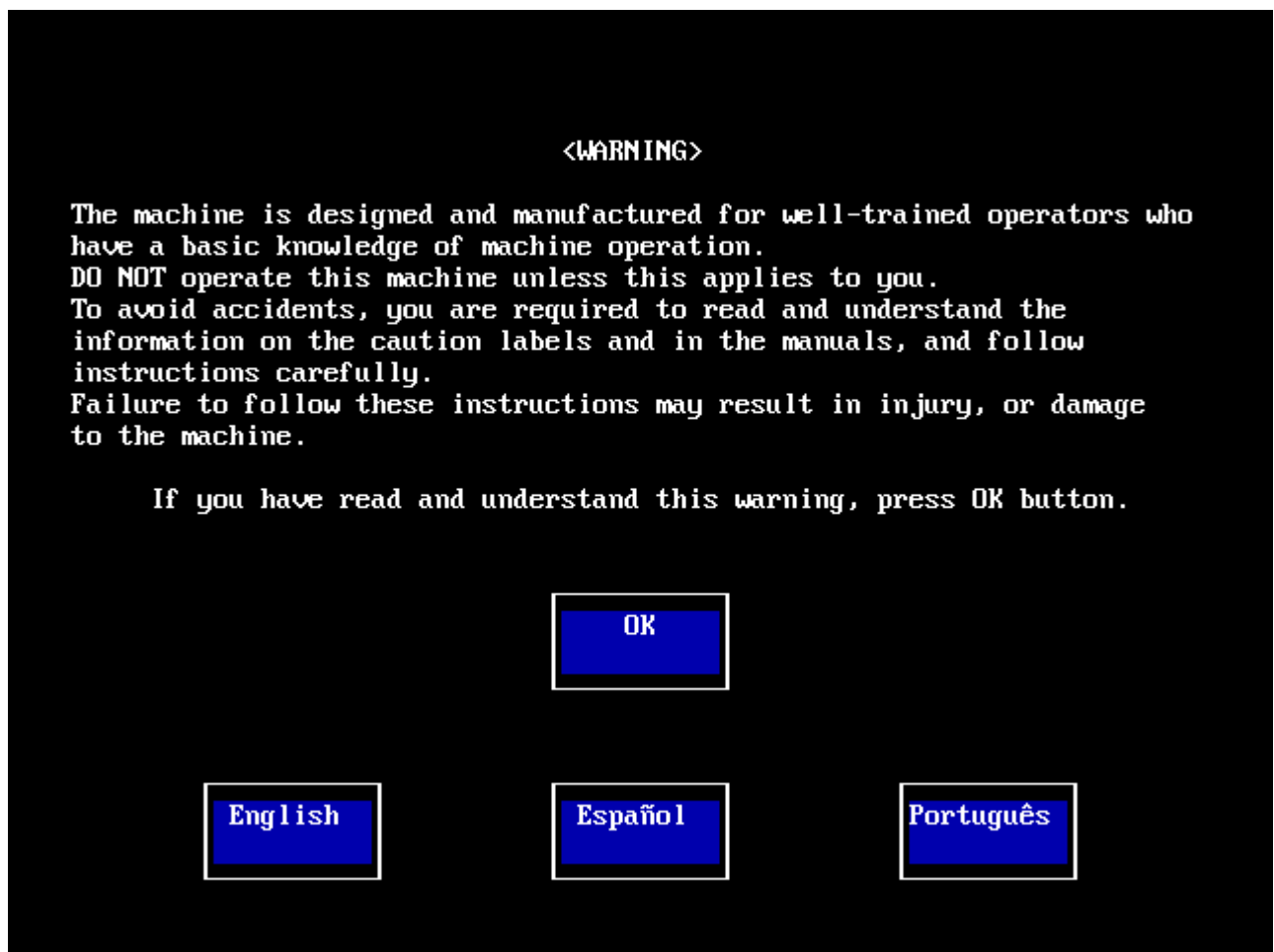
**WASHDOWN**

\_\_\_\_\_ 77



## WARNING

- THE WARNING SCREEN CONTAINS A BRIEF WARNING ABOUT OPERATING THE MACHINE.
- TOUCH **OK** TO AGREE.
- TOUCH THE LANGUAGE BUTTONS TO VIEW THE WARNING IN THAT LANGUAGE. THIS ALSO CHANGES LANGUAGE FOR THE MACHINE.





## RUN SCREEN

THE RUN SCREEN IS USED TO MONITOR THE SELECTED PROGRAM SETTINGS. THE PROGRAM NAME, DATE, AND TIME ARE ALL DISPLAYED ON THIS SCREEN. THE RUN SCREEN ALSO DISPLAYS A SCALE SHOWING THE MACHINE CYCLE GRAPHICALLY, AND THE BAGGER INTERFACE MODE.

Program : FACTORY      Friday, June 24, 2016 12:09:31 PM  
 Run Screen

	Start	Stop		Start	Stop
Vert. Seal Heater	120	270			
Vert. Seal Cooler	270	359			
			Printer	250	305
			Film Drive	20	
Jaws Assy.	170	0			
Horiz Seal Heater	20	300	Bag Length	15.00	
Horiz Seal Cooler	300	359	Print Position	7.00	
◇ Cutter Blade	215	300	Film Speed	2600	
			Product Arrival	15	

MASTER      Bags Per Min      30

Keypad

Machine Statistics

Select Program

Longer

Shorter

Filled  
Empty

Contn  
Single

STOP

Change Screen

Display Status

Manual Screen

Utility Menu

Servo Status



FROM THE RUN SCREEN, YOU MAY SELECT THE FOLLOWING.

### **SELECT PROGRAM**

- TO SELECT A PROGRAM, THE OPERATOR MUST FIRST TOUCH THE SELECT PROGRAM BUTTON, TO DISPLAY THE PROGRAM SELECTION SCREEN.
- THE OPERATOR CAN NOW CHOOSE A PROGRAM BY TOUCHING THE NAME OF THE DESIRED PROGRAM.
- THE NAME WILL THEN HIGHLIGHT.
- TOUCH THE ACCEPT BAR AND THAT PROGRAM WILL BE LOADED.

### **SELECT FILLED OR EMPTY BAGS**

- THE OPERATOR MAY SELECT FILLED OR EMPTY BAGS BY USING THE FILLED/EMPTY BUTTON.
- SELECTING FILLED OR EMPTY BAGS CAN ONLY BE DONE WHEN THE MACHINE IS STOPPED.
- TO SELECT EMPTY BAGS, TOUCH THE WORD EMPTY.
- WHEN THE MACHINE IS SET TO RUN EMPTY BAGS, THE JAWS WILL STAY OPEN AFTER EACH CYCLE.

### **SELECT SINGLE OR CONTINUOUS BAGS**

- THE OPERATOR MAY SELECT CONTINUOUS CYCLE OR SINGLE CYCLE BY TOUCHING THE CON'T/SINGLE BUTTON.
- WHEN EMPTY/CONTINUOUS IS SELECTED, THE MACHINE WILL RUN UNTIL THE STOP BUTTON IS TOUCHED OR AN E-STOP CONDITION IS REACHED.
- WHEN FILLED/CONTINUOUS IS SELECTED, THE MACHINE WILL ONLY CYCLE WHEN AN INPUT FROM THE SCALE OR RESET/START BUTTON IS RECEIVED.
- WHEN EMPTY/SINGLE IS SELECTED, THE MACHINE WILL MAKE AN EMPTY BAG EVERY TIME THE RESET/START BUTTON IS PRESSED.

### **STOP THE MACHINE**

- THE OPERATOR MAY AT ANY TIME STOP THE MACHINE BY TOUCHING THE STOP BUTTON. IF THE STOP BUTTON IS TOUCHED DURING A CYCLE THE MACHINE WILL FINISH ITS CYCLE AND THEN STOP.



## **HOME JAWS**

- TOUCH THE HOME JAWS BUTTON TO HOME THE JAWS.
- THE JAWS MUST BE HOMED ANYTIME THE MACHINE IS TURNED OFF.
- THE BUTTON WILL FLASH RED WHEN THE MACHINE WANTS THE OPERATOR TO HOME THE JAWS.

## **PRINTED SETUP**

- WHEN RUNNING PRINTED FILM, THE PRINTED SETUP BUTTON WILL BE DISPLAYED. THIS IS USED TO SETUP FOR PRINTED FILM, FOR MORE INFORMATION ON PRINTED SETUP, PLEASE SEE PG 100

## **CHANGE SCREEN, DISPLAY STATUS, UTILITY MENU, SERVO SETUP, SERVO STATUS, MACHINE STATISTICS, AND KEYPAD.**

- THESE SCREENS CAN BE SELECTED BY TOUCHING THE APPROPRIATE BUTTON. ALL THE SCREENS CAN BE SELECTED WHEN THE MACHINE IS STOPPED.
- UTILITY MENU AND MANUAL SCREEN CAN ONLY BE SELECTED WHEN THE MACHINE IS STOPPED.



## CHANGE SETTINGS SCREEN

THE CHANGE SETTINGS SCREEN IS A PASSWORD PROTECTED SCREEN USED TO MAKE CHANGES IN A SELECTED PROGRAM. ONLY FILM LENGTH WHEN RUNNING CLEAR BAGS, OR PRINT POSITION WHEN RUNNING PRINTED BAGS CAN BE CHANGED OUTSIDE THE CHANGE SETTINGS SCREEN. THESE VALUES ARE NOT PERMANENTLY SAVED AND WILL RETURN TO THEIR ORIGINAL VALUES WHEN THE POWER IS TURNED OFF OR A NEW PROGRAM IS LOADED.

TO ACCESS THE SCREEN, TOUCH THE CHANGE SCREEN BUTTON IN THE UPPER RIGHT-HAND CORNER OF THE RUN SCREEN, ENTER THE CORRECT PASSWORD, AND THEN TOUCH ENTER. THE CHANGE SCREEN WILL NOW BE DISPLAYED. IF THE INCORRECT PASSWORD IS ENTERED, THE RUN SCREEN WILL BE DISPLAYED.

Program : FACTORY      Friday, June 24, 2016 5:35:49 PM  
Change Settings

	Start	Stop		Start	Stop
Vert. Seal Heater	120	270			
Vert. Seal Cooler	270	359			
			Printer	250	305
			Film Drive	20	
Jaws Assy.	170	0			
Horiz Seal Heater	20	300	R Bag Length	15.00	--.--
Horiz Seal Cooler	300	359	Print Position	7.00	0.00
⊗ Cutter Blade	215	300	Film Speed	2600	
			Product Arrival	15	
MASTER			Bags Per Min	30	

Keypad	Printed Setup	Machine Statistics	
Select Program	Later	Sooner	Filled Empty    Contn Single

Run Screen

Display Status

Manual Screen

Enabled Disabled

Clear Printed

Servo Status

STOP





THE CHANGE SCREEN FUNCTIONS ARE THE SAME AS THE RUN SCREEN IN ADDITION TO THE FOLLOWING.

### **RENAME A PROGRAM**

- TOUCHING THE PROGRAM NAME IN THE TOP LEFT-HAND CORNER OF THE SCREEN ALLOWS THE OPERATOR TO RENAME THE SELECTED PROGRAM.

### **SELECT PRINTED OR CLEAR FILM**

- PRINTED OR CLEAR FILM IS SELECTED BY TOUCHING THE APPROPRIATE WORD IN THE CLEAR/PRINTED BUTTON.
- WHEN PRINTED FILM IS SELECTED, THE MACHINE CONTROL IS NOW SET TO LOOK FOR A REGISTRATION INPUT. THIS INPUT IS TYPICALLY THE REGISTRATION MARK ON THE FILM.
- THE EYE, WHICH SENSES THE MARK, IS LOCATED DIRECTLY BEHIND THE NIP AND DRIVE ROLLER ALONG THE FILM PATH.
- BAG LENGTH AND PRINT POSITION WILL BE DISPLAYED ON THE SCREEN.
- BAG LENGTH IS SET DURING PRINTED SETUP AND PRINT POSITION ADJUSTS THE PRINT IN RELATIONSHIP TO THE JAW CUT.
- WHEN CLEAR FILM IS SELECTED FILM LENGTH WILL BE DISPLAYED.
- THE OPERATOR CAN CHANGE THE FILM LENGTH BY TOUCHING THE NUMBER AND THEN TOUCHING THE COUNT UP OR COUNT DOWN BUTTON TO ENTER THE DESIRED LENGTH.

### **ENABLE/DISABLE ANY FUNCTION**

- THE OPERATOR MUST FIRST SELECT THE FUNCTION BY TOUCHING THE NUMBER TO THE RIGHT OF THE NAME.
- BY USING THE ENABLE/DISABLE BUTTON, THE OPERATOR CAN DISABLE THE SELECTED FUNCTION.
- WHEN A FUNCTION IS DISABLED, A RED MARK WILL BE DISPLAYED NEXT TO THE DISABLE FUNCTION.
- YOU CAN DISABLE ALL FUNCTIONS FROM THE KEYPAD.

### **CHANGING SETTINGS**

- EACH FUNCTION START, AND STOP TIME CAN BE ADJUSTED BY TOUCHING THE APPROPRIATE NUMBER TO THE RIGHT OF THE FUNCTION NAME. THIS NUMBER WILL HIGHLIGHT IN RED.



## DISPLAY STATUS

THE DISPLAY STATUS SCREEN IS USED TO MONITOR THE MACHINE'S INPUTS. THE INPUT NUMBER AND FUNCTIONS ARE DISPLAYED TO THE LEFT OF THE FUNCTION AND CORRESPONDS TO THE NUMBER AND FUNCTION ON THE INPUT BOARD INSIDE THE ELECTRICAL CABINET. WHEN AN INPUT IS ACTIVE, THE LINE WILL BE HIGHLIGHTED. WHEN THE OPERATOR PRESSES THE RESET BUTTON, ALL HIGHLIGHTED INPUTS IN THE LEFT-HAND COLUMN SHOULD GO OUT, IF ONE OR MORE INPUTS DO NOT GO OUT, THEN THIS IS AN INDICATION THAT THERE IS A PROBLEM WITH THAT FUNCTION. THE INPUTS IN THE UPPER RIGHT-HAND COLUMN PROVIDE THE OPERATOR WITH DEGREE VALUES THAT AID IN TIMING A PROGRAM. SEE PROGRAMMING ON PG 100

Friday, June 24, 2016 5:36:38 PM

DISPLAY STATUS

Input#	Function	Input#	Function		
0	24 vdc	12	Film Drive End	0°	
1	MCR Detect	13	Jaws Open	0°	
2	Front Door	14	Jaws Close	0°	0 msec
3	Back Door	15	Scale Ready	0°	0 msec
4	Nip Roller Open	16	Temperature Deviation		
5	E-Stop	17	Spare 17		
6	Servo Fault	18	Spare 18		
7	Low Air	19	Spare 19		
8	Low Film	20	Spare 20		
9	Product Detect				
10	Reset/Start Button	22	Scale Overload Check	0°	
11	Reg. Mark Not Detected				

TOUCH SCREEN TO EXIT

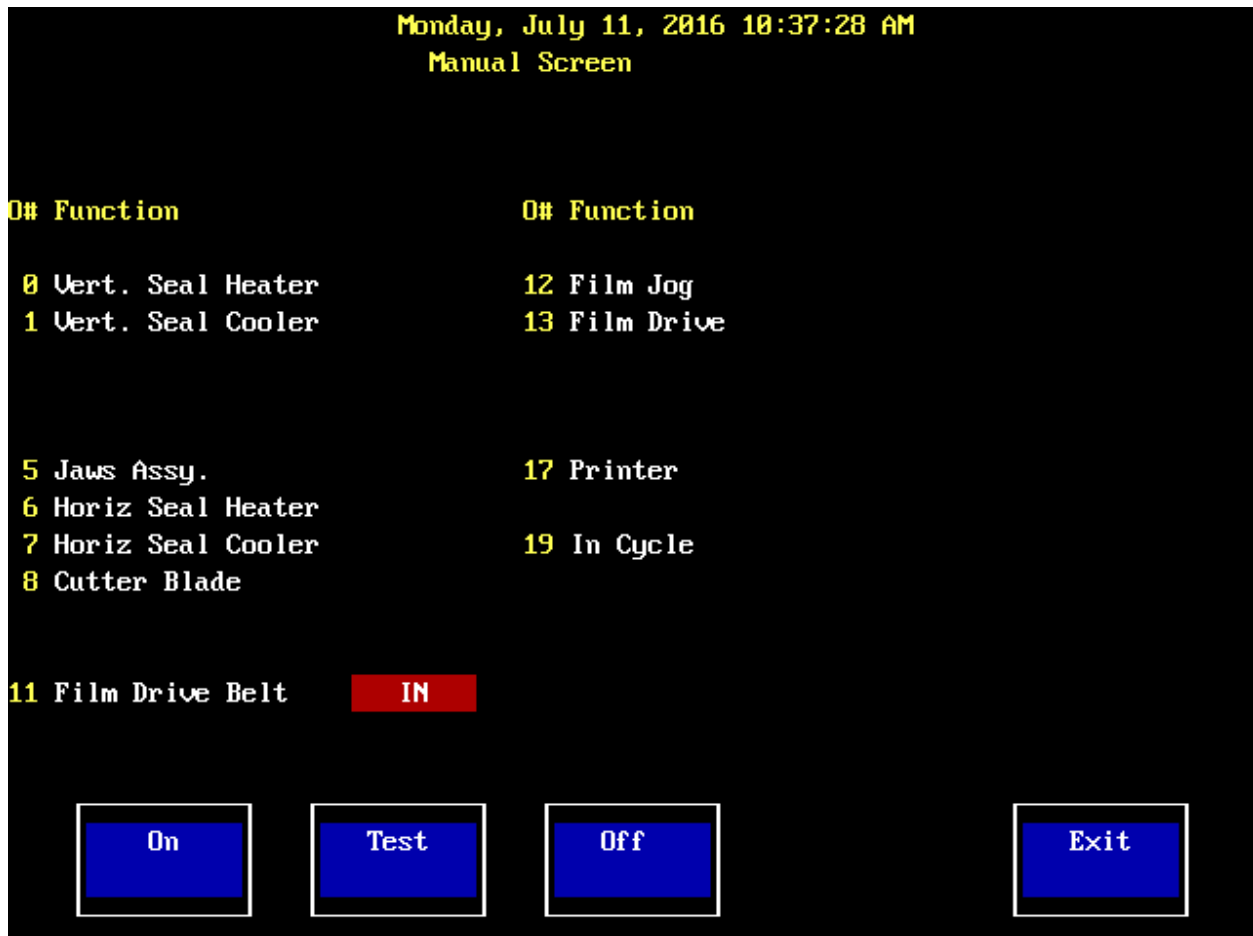


## MANUAL SCREEN

THE MANUAL SCREEN IS USED TO OPERATE THE MACHINE FUNCTIONS INDEPENDENTLY. THE SCREEN CAN ALSO BE USED FOR TROUBLESHOOTING. THE MANUAL SCREEN ALSO DISPLAYS THE OUTPUT NUMBER NEXT TO THE FUNCTION NAME.

THE OUTPUT NUMBERS AND FUNCTIONS ARE DISPLAYED AND CORRESPOND WITH THE NUMBERS AND FUNCTIONS ON THE OUTPUT BOARD.

THE MANUAL SCREEN CAN ONLY BE ACCESSED WHEN THE MACHINE IS STOPPED. TO MANUALLY USE A FUNCTION, HIGHLIGHT THE FUNCTION NAME AND TOUCH TEST. THIS FUNCTION WILL REMAIN IN ITS SECONDARY POSITION UNTIL THE TEST BUTTON IS RELEASED. TO TURN A FUNCTION ON AND OFF USE THE IN/OUT OR ON/OFF BUTTONS NEXT TO THE TEST BUTTON.





## UTILITY MENU

THIS SCREEN IS USED TO SET PARAMETERS THAT ARE COMMON TO ALL PROGRAMS. THE SCREEN ALSO PROVIDES INFORMATION WINDOWS ABOUT MACHINE SOFTWARE. THE NEXT FEW PAGES WILL COVER ALL THE SCREENS ASSOCIATED WITH THE UTILITY MENU.

Machine Param.	Update M3	Machine Statistics	Copy Program
Servo Utility		Diag.	Copy Files
English	Change Password	Factory Default	Touch Scrn Doctor
Español	Set Date	Service Manuals	Error Log
Português	Set Time	About Info	Exit Utility



## MACHINE PARAM.

THE MACHINE PARAM. SCREEN HAS 2 LEVELS. THE FIRST LEVEL GIVES YOU ACCESS TO INPUT, OUTPUT, SERVO AND ETHERNET PARAM.



THE SECOND LEVEL ALLOWS THE OPERATOR TO CHANGE THE FOLLOWING.

- **SCREEN SAVE**
  - THE AMOUNT OF TIME BEFORE THE SCREEN SAVER IS SHOWN.
- **HOLD DEGREE**
  - THE DEGREE THAT THE MACHINE CHECKS THE PRODUCT DETECT INPUT.
- **JAMMED JAW SET**
  - SETS THE MAX NUMBER OF TIMES THE JAWS CAN JAM BEFORE THE MACHINE E-STOP.
- **MODE**
  - SETS THE MACHINE INTERFACE MODE. SEE PAGE 64 FOR MORE INFO.



- **DUMPS**
  - SETS THE NUMBER OF DUMPS THE MACHINE REQUIRES FROM THE SCALE BEFORE MAKING 1 FILLED BAG.
- **SERVO SETUP**
  - SELECTS WHICH SERVOS THE COMPUTER SHOULD ATTEMPT TO USE. SEE PAGE 100 FOR MORE INFO.
- **PRODUCT ARRIVAL WIDTH**
  - DURATION OF THE PRODUCT ARRIVAL PULSE.
- **SERVO PULSE WIDTH**
  - DURATION OF THE FILM DRIVE OUTPUT PULSE.
- **DUAL PROGRAM MODE**
  - USED TO MAKE VERY LARGE BAGS. SEE PAGE 100 FOR MORE INFO.
- **TEMPERATURE CONTROL MODE**
  - FUTURE R&D. CURRENTLY UNAVAILABLE.
- **SCALE READY VALID WIDTH**
  - SETS THE MINIMUM WIDTH (DURATION) OF THE SCALE READY SIGNAL THAT THE COMPUTER WILL ACCEPT.
- **SCALE READY IGNORE START/STOP**
  - COMPUTER WILL IGNORE A SCALE READY SIGNAL BETWEEN THIS DEGREE AND THE IGNORE STOP DEGREE UNLESS THEY ARE THE SAME.
- **CUSHION LENGTH**
  - CHANGEABLE BY PACMAC PERSONNEL ONLY.
- **SPECIAL FUNCTION**
  - CONFIGURES OUTPUT AUX 4. FOR SPECIAL FUNCTION. SEE PAGE 100 FOR MORE INFO.
- **JAW STAGE MODE**
  - ONLY VISIBLE WHEN SERVO SETUP IS SET TO INCLUDE JD. SEE PAGE 100 FOR MORE INFO.
- **SCALE OVERLOAD CHECK**
  - CONFIGURES SCALE OVERLOAD FEATURE. SEE PAGE 100 FOR MORE INFO.



- **JAMMED JAW**

- SETS THE LENGTH OF TIME ALLOWED FOR THE JAWS TO BECOME FULLY CLOSED.

**Machine Parameters Screen**

Screen Save	= 120 sec
Hold Degree	= 355 °
<b>Jammed Jaws Set</b>	<b>= 0</b>
Mode	= Master
Dumps	= 1
Servo Setup	= Film Drive Only
Product Arrival Width	= 150 ms
Servo Pulse Width	= 150 ms
Dual Program Mode	= Single Program Mode
Temperature Control Mode	= None
Scale Ready Valid Width	= 0 ms
Scale Ready Ignore Start	= 0 °
Scale Ready Ignore Stop	= 0 °
Cushion Length	= 0.0 inch
Special Function	= No Special function
Jammed Jaw	= 250 ms

**Increase      Decrease      Keypad      Disable Auth Code      Exit**



## INPUT PARAM.

THIS SCREEN ALLOWS THE OPERATOR TO CONFIGURE THE INPUTS THAT ARE CONFIGURABLE.

The screenshot shows a terminal window titled "Input Parameters Screen". It contains a table with three columns: "Input#", "Function", and "Count". The row for "Temperature Deviation" is highlighted in red. Below the table are five buttons: "Increase", "Decrease", "Keypad", "Rename Prompt", and "Exit".

Input#	Function	Count
3	Back Door	
4	Nip Roller Open	1
8	Low Film	25
9	Product Detect	10
16	Temperature Deviation	7
17	Spare 17	-1
18	Spare 18	-1
19	Spare 19	-1
20	Spare 20	-1

- **INPUT #**
  - THIS NUMBER CORRESPONDS WITH THE INPUT NUMBER ON THE INPUT BOARD.
- **FUNCTION**
  - LISTS THE FUNCTION OF THE INPUT TO BE CONFIGURED.
- **COUNT**
  - -1 OFF/IGNORED
  - 0 INSTANT STOP WHEN INPUT IS RECEIVED.
  - 1-999 NUMBER OF MACHINE CYCLES THAT WILL RUN BEFORE THE MACHINE STOPS.





## OUTPUT PARAM

THIS SCREEN IS USED TO CONFIGURE THE DEGREE-TYPE OUTPUTS.

Output Parameters Screen

O#	Function	S/H	Freq
0	Vert. Seal Heater	SHOW	1
1	Vert. Seal Cooler	SHOW	1
2	Zipper Pinch	HIDE	1
3	Zipper Weld	HIDE	1
4	Bag Stretcher	HIDE	1
5	Jaws Assy.		1
6	Horiz Seal Heater	SHOW	1
7	Horiz Seal Cooler	SHOW	1
8	Cutter Blade		1
9	Aux. 1	HIDE	1
10	Aux. 2	HIDE	1
16	Product Arrival		
20	Aux. 3	HIDE	1
21	Aux. 4	HIDE	1
22	Aux. 5	HIDE	1
17	Printer	SHOW	1

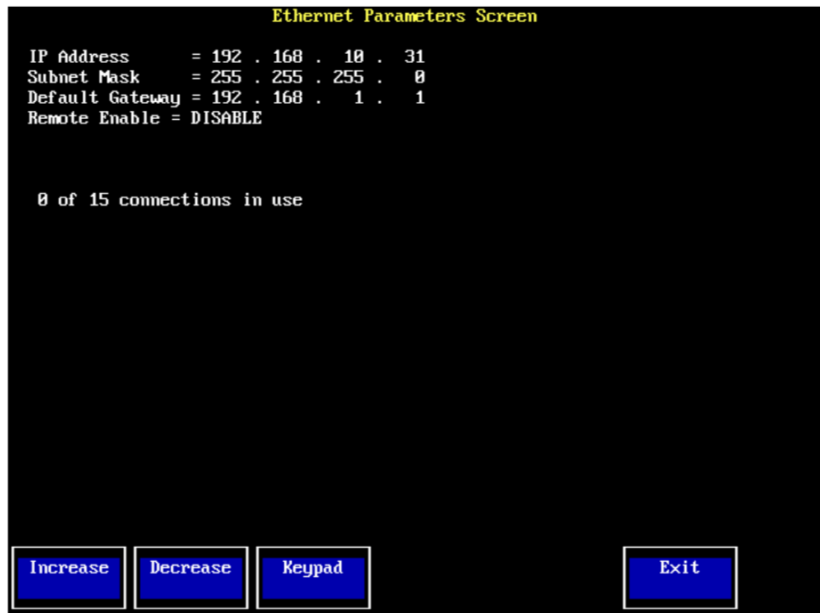
Buttons: Increase, Decrease, Keypad, Rename Prompt, Show Hide, Exit

- **OUTPUT # (O#)**
  - THIS NUMBER CORRESPONDS WITH THE OUTPUT NUMBER ON THE OUTPUT BOARD.
- **FUNCTION**
  - LIST THE FUNCTION OF THE OUTPUT TO BE CONFIGURED. THIS CAN BE RENAMED.
- **S/H**
  - USED TO SHOW OR HIDE THE OUTPUT FROM THE RUN AND CHANGE SCREENS.
- **FREQ.**
  - SETS THE FREQUENCY AT WHICH THE OUTPUT OPERATES.
  - MINIMUM IS 1 = EVERY CYCLE
  - MAXIMUM IS 10 = EVERY TENTH CYCLE.



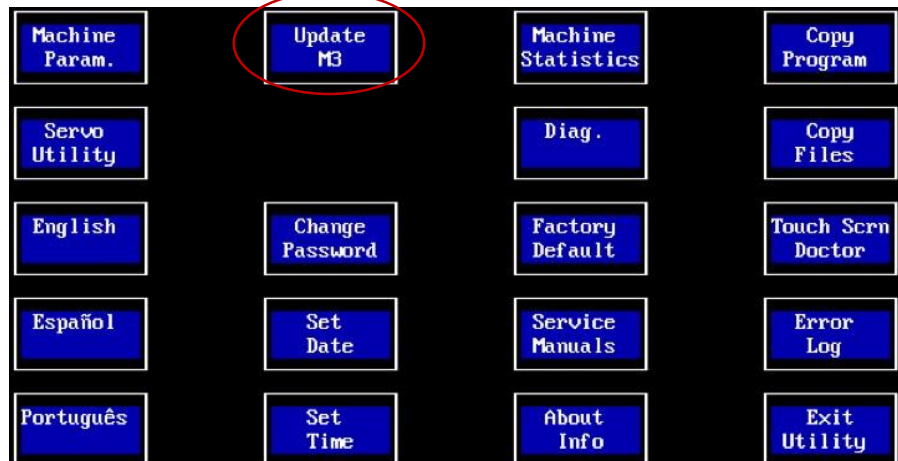
## ETHERNET PARAM.

THIS SCREEN ALLOWS YOU TO VIEW THE MACHINE'S ETHERNET SETTINGS. FROM THIS SCREEN YOU CAN CONFIGURE THE MACHINE IP ADDRESS, SUBNET MASK, DEFAULT GATEWAY, CONFIGURE WHETHER THE MACHINE WILL ALLOW REMOTE CONTROL, AND DISPLAYS HOW MANY DEVICES ARE CONNECTED TO THE COMPUTERS MODBUS SERVER.



## UPDATE M3

THIS SCREEN IS USED TO UPDATE THE VERSION OF M3 SOFTWARE TO THE LATEST REVISION. THIS REQUIRES A SOFTWARE USB OBTAINABLE FROM PACMAC.





## MACHINE STATISTICS

THE SCREEN ALLOWS YOU TO TRACK THE PERFORMANCE OF THE MACHINE ON A DAILY BASIS AND HAS A LIFETIME COUNT. THE DAILY VALUES ARE RESETTABLE VIA THE RESET BUTTON AT THE BOTTOM OF THE SCREEN.

**Machine Statistics**

Total filled bags	:	0	Daily filled bags	:	0
Total empty bags	:	0	Daily empty bags	:	0
Total overload bags	:	0	Daily overload bags	:	0
Machine On Time	:	3128 min	Machine On Time	:	3128 min
Machine Idle Time	:	0 min	Machine Idle Time	:	0 min
Machine Run Time	:	0 min	Machine Run Time	:	0 min
Machine Down Time	:	19 min	Machine Down Time	:	19 min
Last reset date			Last reset date		
Monday May 16, 2016 at 03:24:57 PM			Monday May 16, 2016 at 03:24:57 PM		

On time - Machine is on  
Idle time - Machine is waiting on scale  
Run time - Machine is making a bag  
Down time - Machine is down



# TOUCH SCREEN DOCTOR

THIS SCREEN IS USED TO TEST THE OPERATION OF THE COMPUTER TOUCH SCREEN. THE SCREEN USES INFRARED BEAMS ACROSS THE SCREEN TO READ AN INPUT AND HIGHLIGHTS THE ASSOCIATED NUMBER ON THE SCREEN. IF A BEAM FAILS TO HIGHLIGHT GREEN THE BEAM IS BAD, AND THE COMPUTER WILL NEED TO BE REPAIRED.

Analyzing touch screen, please wait...  
No failed beam

X-Touch = 0  
Y-Touch = 0

Please touch the screen to test the beams

X-beams :  
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39  
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59  
60 61 62 63 64 65 66 67 68

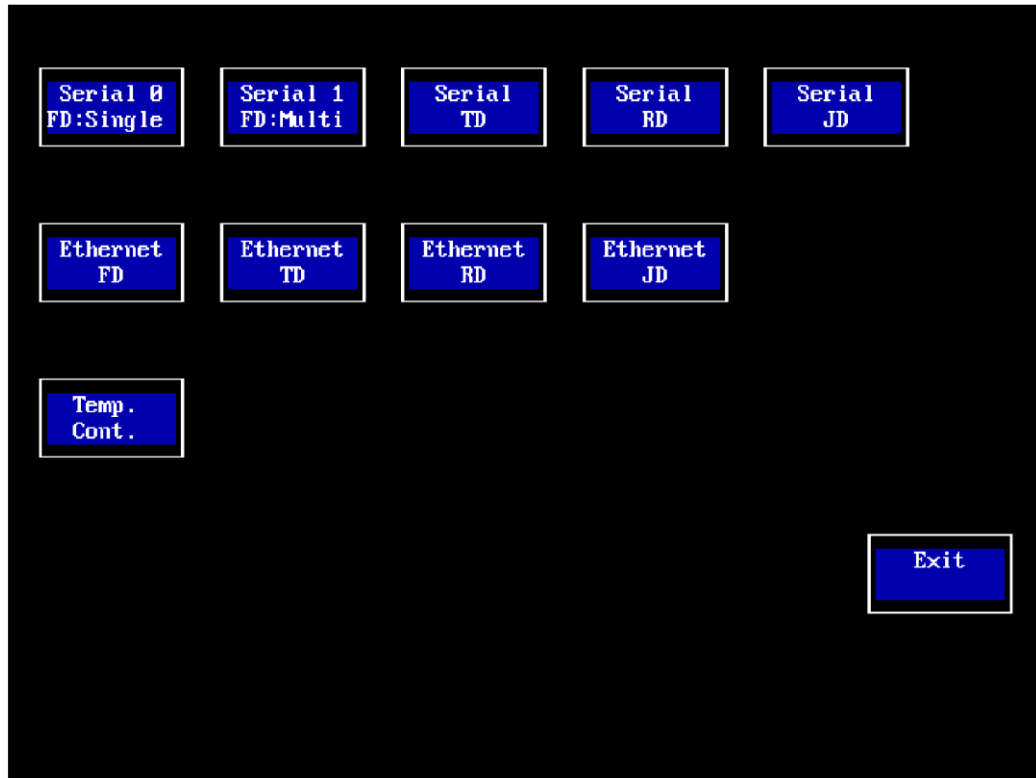
Y-beams :  
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39  
40 41 42 43 44 45 46 47 48 49 50

Please pull E-Stop to exit the screen

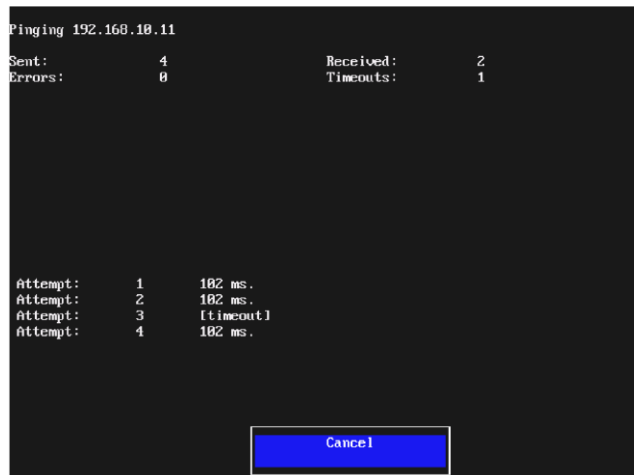


## DIAG.

THIS SCREEN IS USED TO TEST SERIAL AND ETHERNET COMMUNICATIONS BETWEEN VARIOUS DEVICES. TOUCH THE BUTTON FOR THE APPROPRIATE CONNECTION AND DEVICE TO TEST ITS CONNECTION.



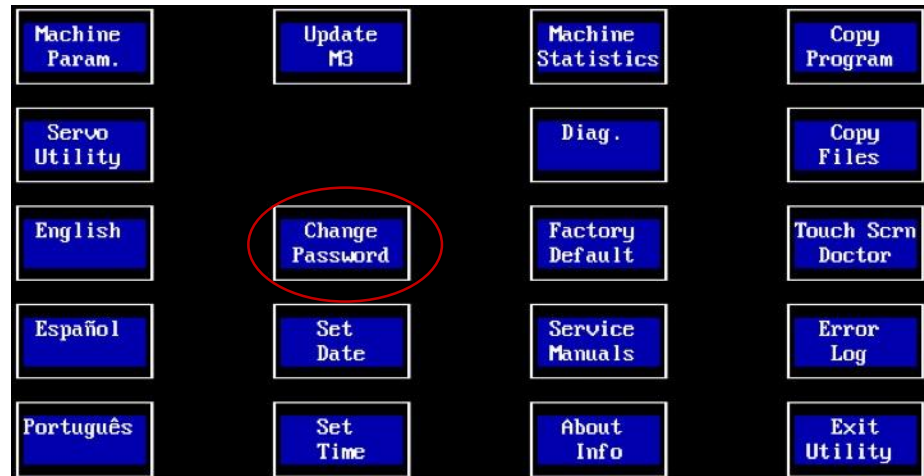
YOU WILL THEN BE BROUGHT TO THIS SCREEN WHICH WILL GIVE YOU THE IP ADDRESS THAT IS BEING TESTED, THE SENT AND RECEIVED COUNT, ERROR COUNT, AND MILLISECOND TIMING ON COMPLETED PINGS.





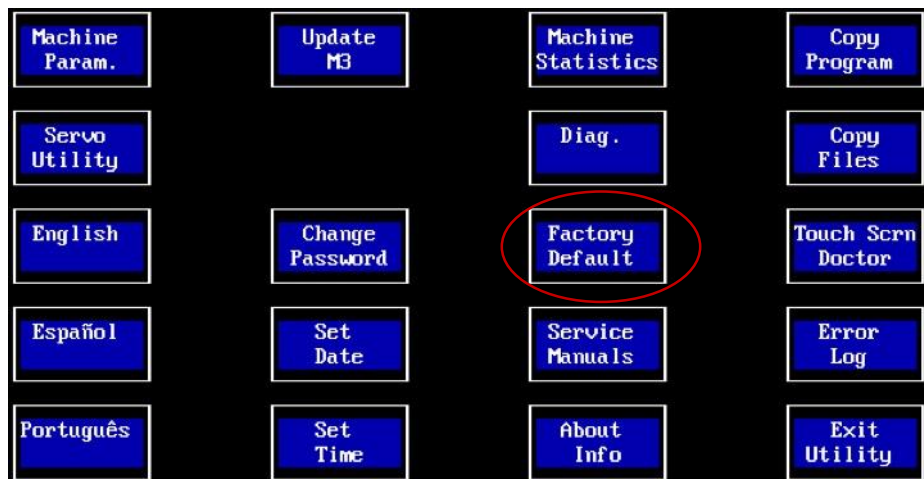
## CHANGE PASSWORD

TO CHANGE THE MACHINE PASSWORD, TOUCH THIS BUTTON AND ENTER THE MACHINE AUTHORIZATION CODE. YOU WILL THEN BE SHOWN THE MACHINES CURRENT PASSWORD, THEN BE PROMPTED TO ENTER THE NEW PASSWORD.



## FACTORY DEFAULT

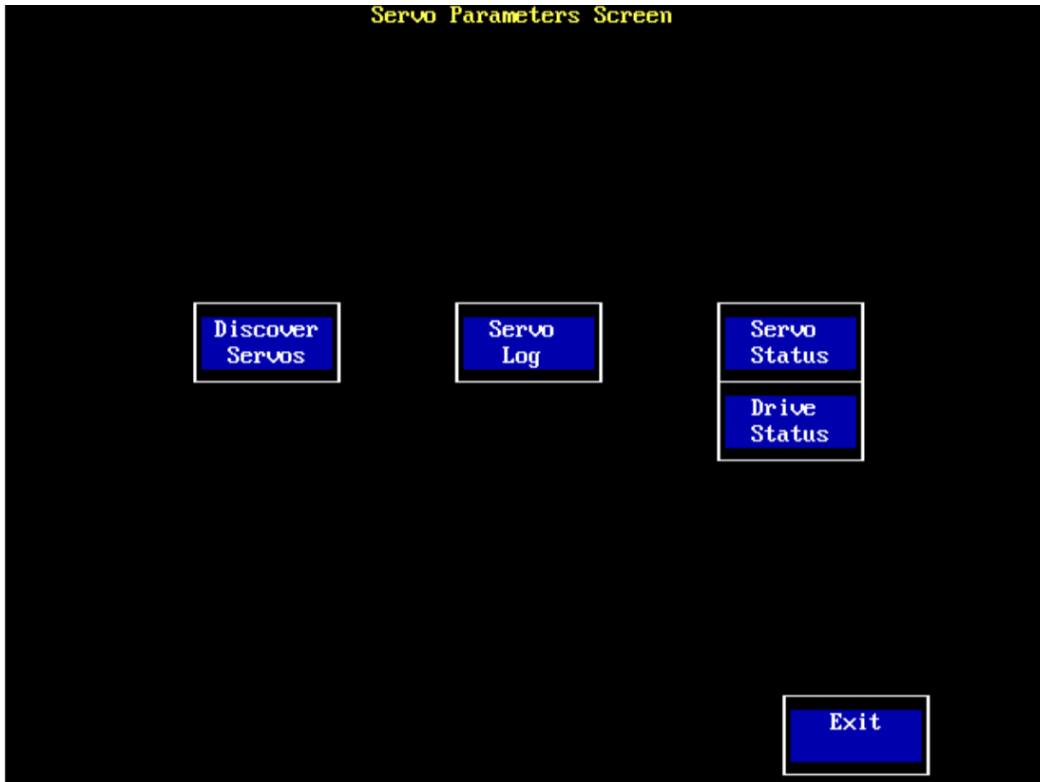
USE THIS BUTTON TO RETURN THE MACHINE TO FACTORY SETTINGS. THIS WILL ERASE ALL PROGRAMS AND SETTINGS AND RETURN THEM BACK TO THE FACTORY SETTINGS.





## SERVO PARAM.

THIS MENU PROVIDES ACCESS TO SERVO OPERATION.

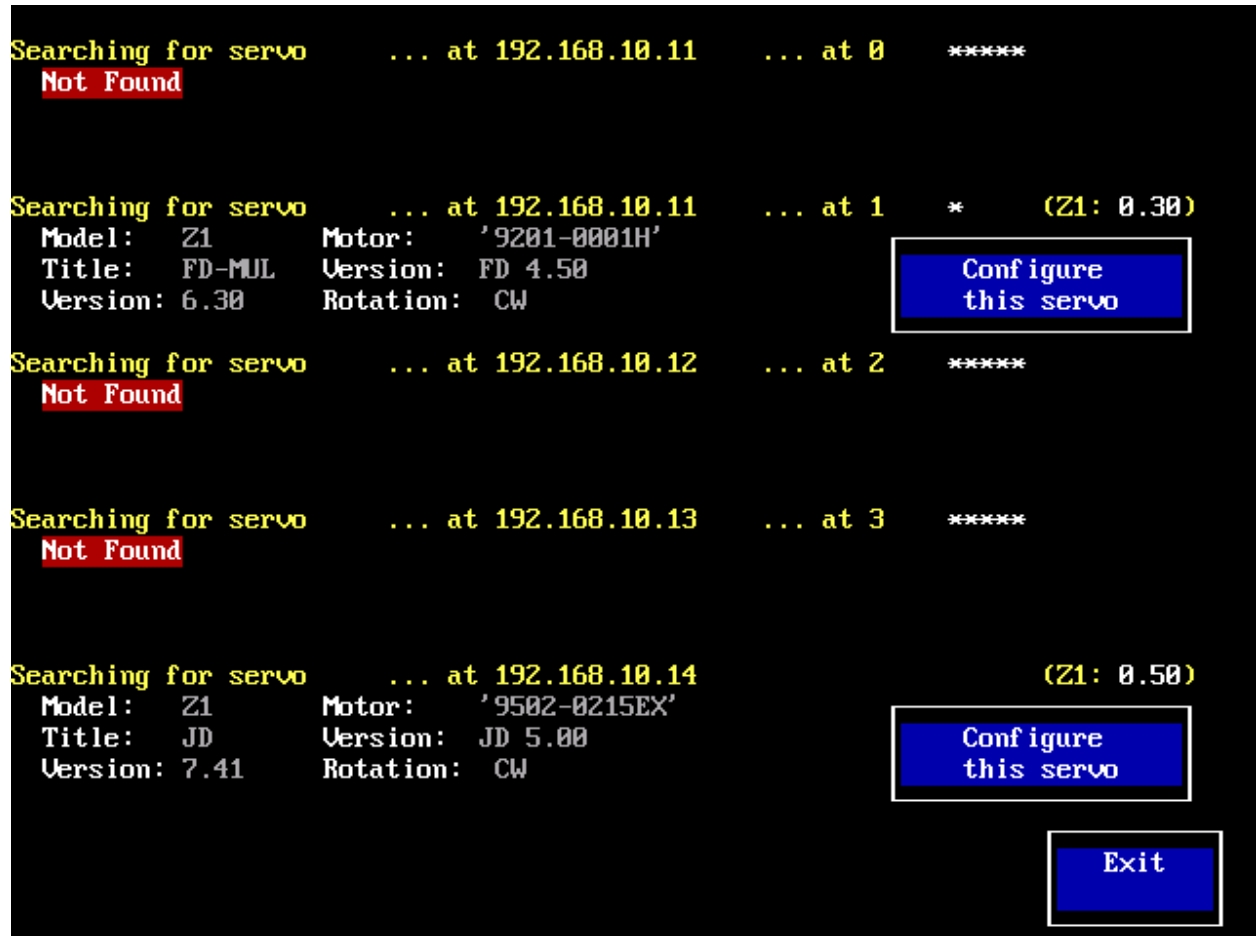


- **DISCOVER SERVOS**
  - THIS BUTTON CAUSES THE COMPUTER TO ATTEMPT COMMUNICATION WITH SUPPORTED SERVO CONTROLLERS AT ALL ADDRESSES.
- **SERVO LOG**
  - DISPLAYS THE SERVO ERROR LOG IF IT IS SUPPORTED.
- **SERVO STATUS**
  - DISPLAYS INFORMATION ON EACH SERVO. NAVIGATE BY TOUCHING THE SCREEN UNTIL RETURNED TO THE MAIN MENU.
- **DRIVE STATUS**
  - ONLY VISIBLE IF A SERVO IS FOUND WHICH SUPPORTS THE FEATURE. SHOWS THE STATUS OF THE SERVO INTERNAL AMPLIFIER.



## SERVO UTILITY/DISCOVER SERVOS

THIS SCREEN ATTEMPTS TO DISCOVER EACH SUPPORTED SERVO CONTROLLER AT ALL ADDRESSES. YOU CAN RECONFIGURE THE AUXILIARY PORT FOR A SERVO CONTROLLER ONLY FROM THE SERVO UTILITY SCREEN.

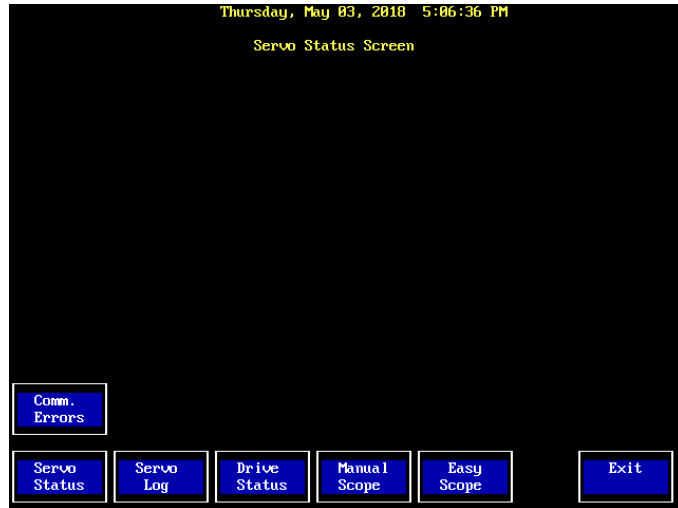






## SERVO STATUS

THIS SCREEN IS USED TO TROUBLESHOOT THE SERVO SYSTEM ON THE MACHINE. WE WILL BRIEFLY COVER EACH SCREEN.



## COMM ERRORS.

THIS SCREEN LOGS ERRORS REPORTED FROM THE SERVO CONTROLLERS. THE ERROR IS LISTED WITH A TIME/DATE STAMP AND THE ERROR.

CYCLE BETWEEN EACH SERVO CONTROLLER VIA THE BUTTONS AT THE BOTTOM OF THE SCREEN.



AS YOU CAN SEE HERE, THE FILM DRIVE HAS NO ERRORS WHILE THE JAW DRIVE HAS A FEW LISTED ERRORS.





## SERVO STATUS

THIS SCREEN SHOWS THE I/O STATUS OF EACH SERVO CONTROLLER, ALONG WITH SOME INTERNAL VALUES ADJUSTED FROM THE COMPUTER. I.E FILM SPEED, LENGTH, JAW OPENING AND SO ON.

CYCLE BETWEEN EACH SERVO CONTROLLER VIA THE BUTTONS AT THE BOTTOM OF THE SCREEN.

THE NUMBERS NEXT TO THE INPUT/OUTPUT NAME CORRESPOND WITH THE WIRE NUMBERS IN THE ELECTRICAL CABINET.

**Film Servo Status (Address 1)**

	OUTPUT	I/O	Servo	
Film Length	Servo Fault	I-14	J2-11	Servo Not Ready
7.00	Film Drive End	I-26	J2-10	OFF
Film Speed	Reg. Mark Not Detect	I-24	J2-4	ON
2500.00	Device Enable	J2-5	J2-5	OFF
Servo Output 4 Enable	Servo Output 4	J2-6	J2-6	OFF
Servo Output 4 Delay				
100				
Servo Output 4 Duration				
100				
	<b>INPUT</b>			
	Not Used		J2-3	OFF
	Not Used		J2-2	OFF
	Select Line 2	0-31	J2-1	OFF
	Select Line 1	0-29	J1-14	ON
	Smart Eye Reg.		J1-12	OFF
	Jog	0-25	J1-9	OFF
	Film Drive	0-27	J1-5	OFF
	Enable	S-4	J1-4	Servo Not Enabled

FD ~~TD~~ ~~RD~~ JD Refresh Param. Exit

**Jaws Servo Status (192.168.10.14)**

	OUTPUT	I/O	Servo	
Open Position	Servo Fault	I-14	J2-11	Servo Ready
5.50	JD Drive In Position	I-48	J2-10	ON
Speed	Jaw Open	I-28	J2-4	ON
2500.00	Jaw Close	I-38	J2-5	OFF
Phase Offset				
-2.50				
Stage Opening				
0.50				
Close Accel.				
4.20				
Close Decel.				
4.20				
Close Smooth.				
0.20				
Open Accel.				
4.20				
Open Decel.				
4.20				
Open Smooth.				
0.20				
ELGPR				
2048				
UGEAR				
16				
UGEAR				
1				

FD ~~TD~~ ~~RD~~ JD Refresh Param. Exit



## SERVO LOG

THIS SCREEN DISPLAYS THE ERROR LOG FROM EACH SERVO CONTROLLER. WHEN THE OPERATOR TOUCHES THE SCREEN, IT WILL DISPLAY THE NEXT SERVO LOG SCREEN. AFTER THE LAST LOG IT WILL RETURN TO THE SERVO PARAM SCREEN.

**Film Servo Fault History (192.168.10.11)**

<b>Fault Description</b>	<b>Fault Description</b>
01/00/00 00:00 Following Error Warn.	01/00/00 00:00 Control Program Halt
01/00/00 00:00 W2 Memory error	01/00/00 00:00 W2 File Error
01/00/00 00:00 Drive Internal Error	01/00/00 00:00 W2 Memory error
01/00/00 00:00 Abort Input Trigger	01/00/00 00:00 Invalid Hall State
01/00/00 00:00 Encoder Failure	01/00/00 00:00 Feedback Sensor Error
01/00/00 00:00 Feedback Sensor Error	01/00/00 00:00 W2 File Not Found
01/00/00 00:00 Invalid Hall State	01/00/00 00:00 W2 Socket Error
01/00/00 00:00 Drive Over Temperature	01/00/00 00:00 W2 IO Error
01/00/00 00:00 Invalid Hall State	13/26/56 16:00 W2 File Not Found
01/00/00 00:00 Drive Short Circuit	13/26/56 16:00 W2 Socket Error
01/00/00 00:00 Drive Internal Error	13/26/56 16:00 W2 IO Error
01/00/00 00:00 W2 File Not Found	04/03/01 00:01 Phase Sync. Error Warn
01/00/00 00:00 W2 File Error	01/00/00 00:00 Phase Sync. Error Warn
01/00/00 00:00 W2 Memory error	01/00/00 00:00 Drive Short Circuit
01/00/00 00:00 Phase Sync. Error Warn	01/00/00 00:00 Drive Internal Error
01/00/00 00:00 Feedback Sensor Error	01/00/01 00:00 Following Error
01/00/00 00:00 Control Program Halt	01/00/01 00:00 Control Program Halt
01/00/00 00:00 W2 File Not Found	01/00/01 00:00 Abort Input Trigger
01/00/00 00:00 W2 File Error	01/00/01 00:00 Encoder Failure
01/00/00 00:00 W2 Memory error	01/02/00 00:00 Following Error

**Touch screen to continue**



## **SERVO SETUP**

THE SERVO SETUP SCREEN IS USED TO CHANGE CONFIGURATIONS FOR THE SERVO CONTROLLERS.

### **FILM DRIVE**

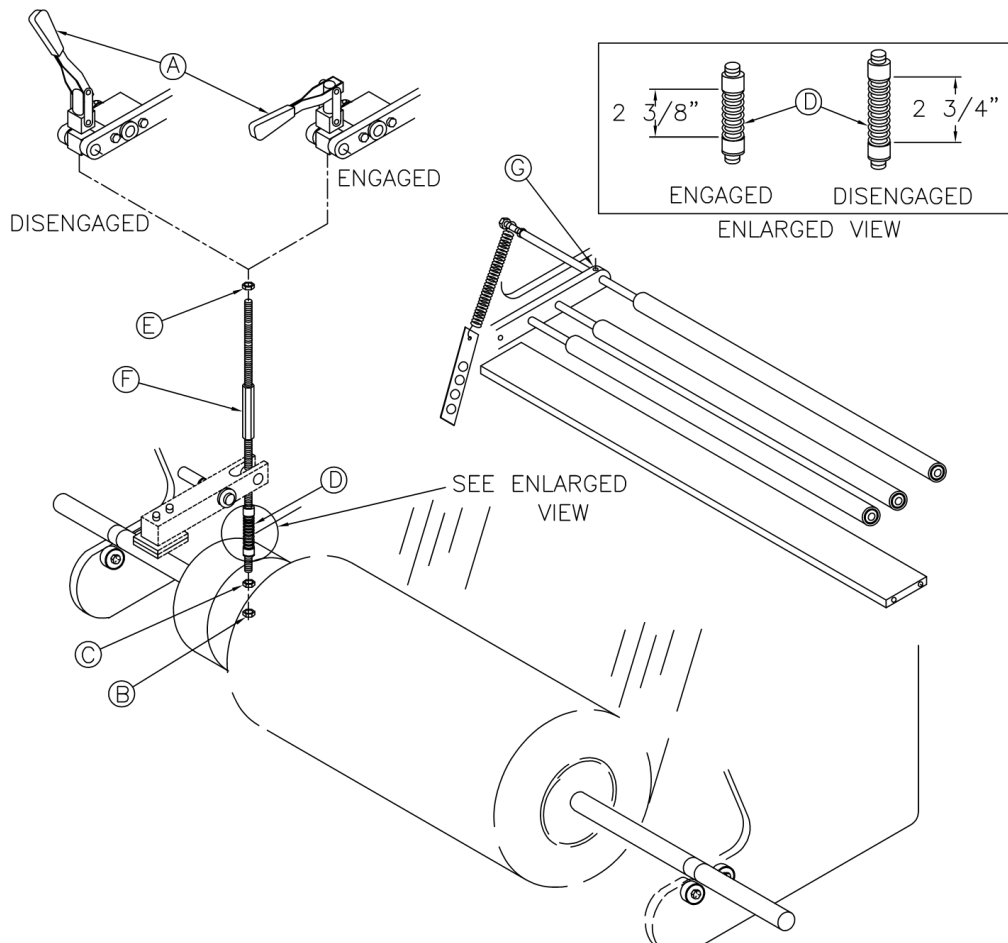
- OUTPUT 4 ENABLE:
  - ENABLES OUTPUT 4 OF SERVO CONTROLLER TO RUN A PRINTER.
- OUTPUT 4 DELAY TO START:
  - MILLISECOND DELAY TO START
- OUTPUT 4 ON DURATION:
  - MILLISECOND ON DURATION LATCH

### **JAW DRIVE**

- JAW OPENING
  - CHANGES HOW FAR THE JAW OPENS
- JAW CLOSE OFFSET
  - CHANGES HOW FAR THE JAW CLOSES.
- JAW MOTOR LOCATION
  - CONFIGURES THE COMPUTER FOR FRONT OR REAR MOUNTED JAW SERVOS.
- STAGE OPENING.
  - CHANGES HOW FAR THE JAW STAGE OPENS.

## HOW TO ADJUST THE FILM AND ZIPPER BRAKES

1. DISENGAGE HANDLE **A**
2. LOOSEN BOTTOM JAM NUT **B**
3. TIGHTEN NUT **C** TO COMPRESS SPRING **D** TO A LENGTH OF APPROX. 2 3/4".
4. TIGHTEN JAM NUT **B** WHILE IN THIS POSITION.
5. LOOSEN TOP JAM NUT **E**.
6. ADJUST ROD **F** TO OBTAIN A SPRING LENGTH OF APPROX 2 3/8" WHEN HANDLE **A** IS ENGAGED.
7. TIGHTEN JAM NUT **E** WHILE IN THIS POSITION.
8. IDEALLY THE DANCER BAR **G** SHOULD MOVE 1" TO 2" ABOVE OR BELOW HORIZONTAL WHEN THE FILM IS MOVING.





## HOW TO COPY A PROGRAM

TO COPY A PROGRAM, YOU MUST HAVE THE PROGRAM YOU WANT COPIED LOADED. SEE SELECT PROGRAM ON PG 5.

ONCE THE PROGRAM YOU WISH TO COPY IS SELECTED DO THE FOLLOWING:

UTILITY MENU

COPY PROGRAM

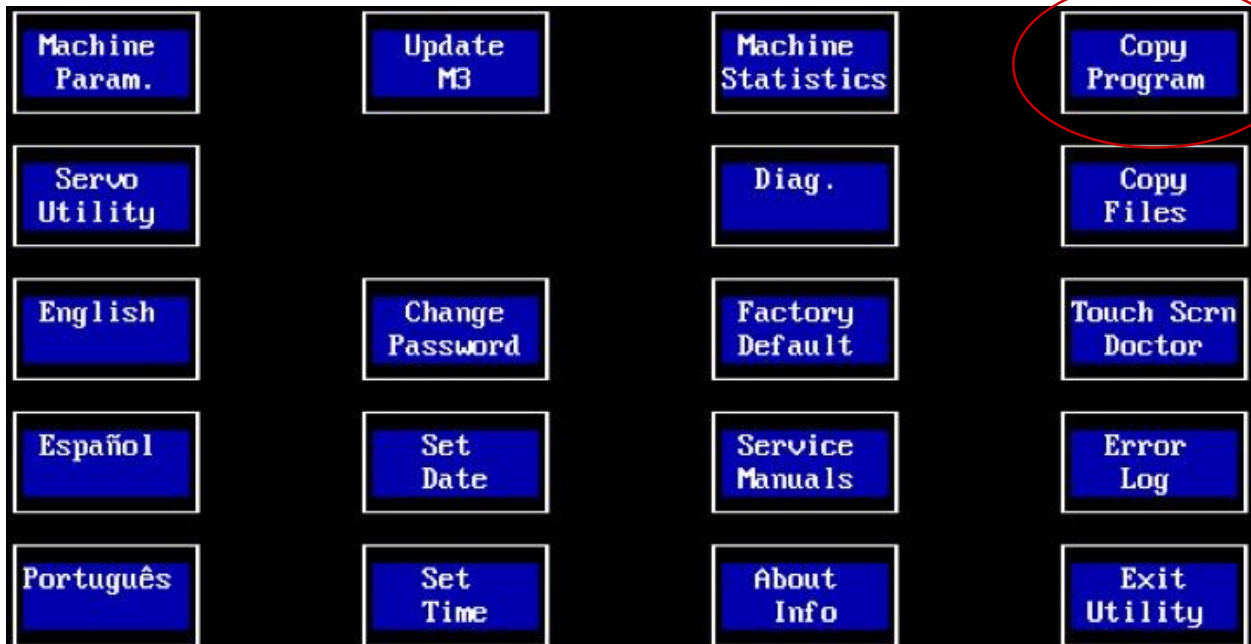
ENTER PASSWORD

SELECT DESIRED SAVE LOCATION

ENTER A PROGRAM NAME

TOUCH SAVE

THE PROGRAM WILL BE SAVED, AND YOU WILL BE RETURNED TO THE RUN SCREEN FOR THE NEW PROGRAM.





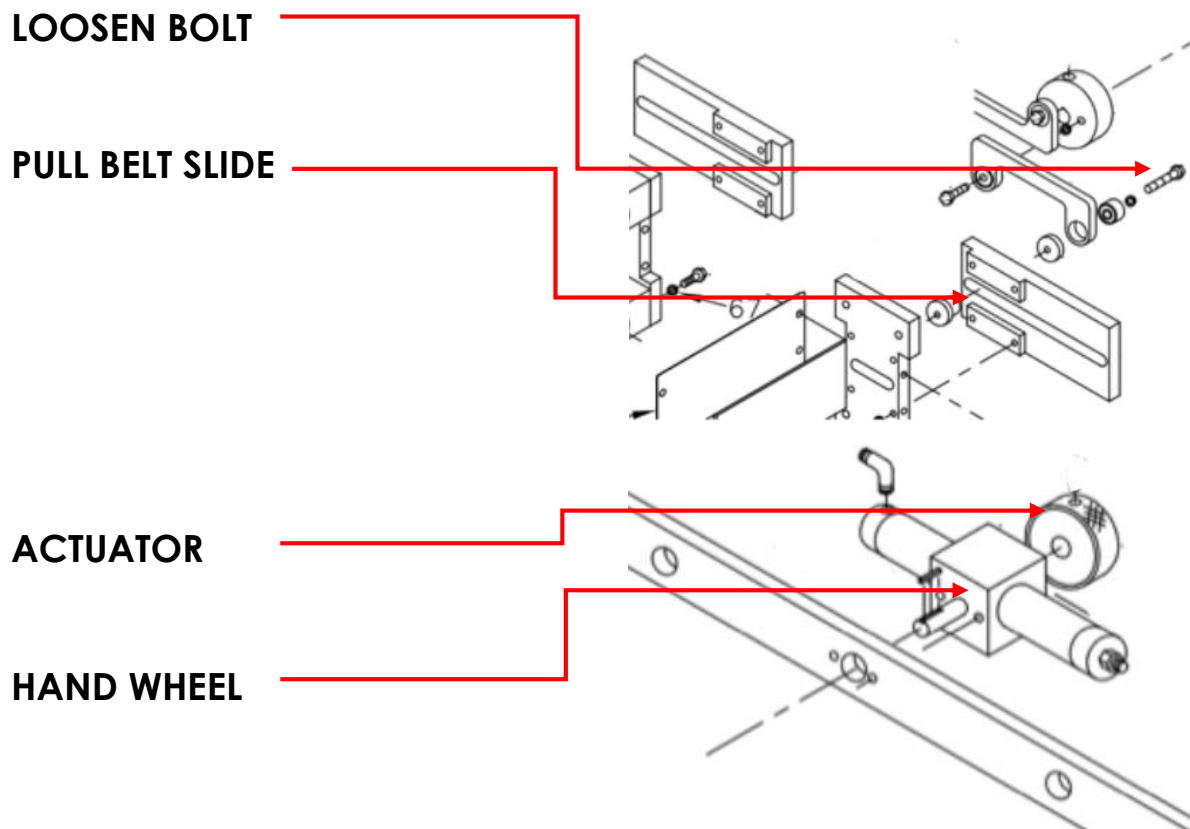
## HOW TO COPY FILES TO AND FROM USB

TO COPY FILES, INSERT A PACMAC FORMATTED USB INTO THE BACK OF THE COMPUTER. TOUCH THE COPY FILES BUTTON IN THE UTILITY MENU AND TOUCH THE BUTTON THAT REFLECTS WHAT YOU WANT TO DO.



## HOW TO ADJUST SIDE BELTS

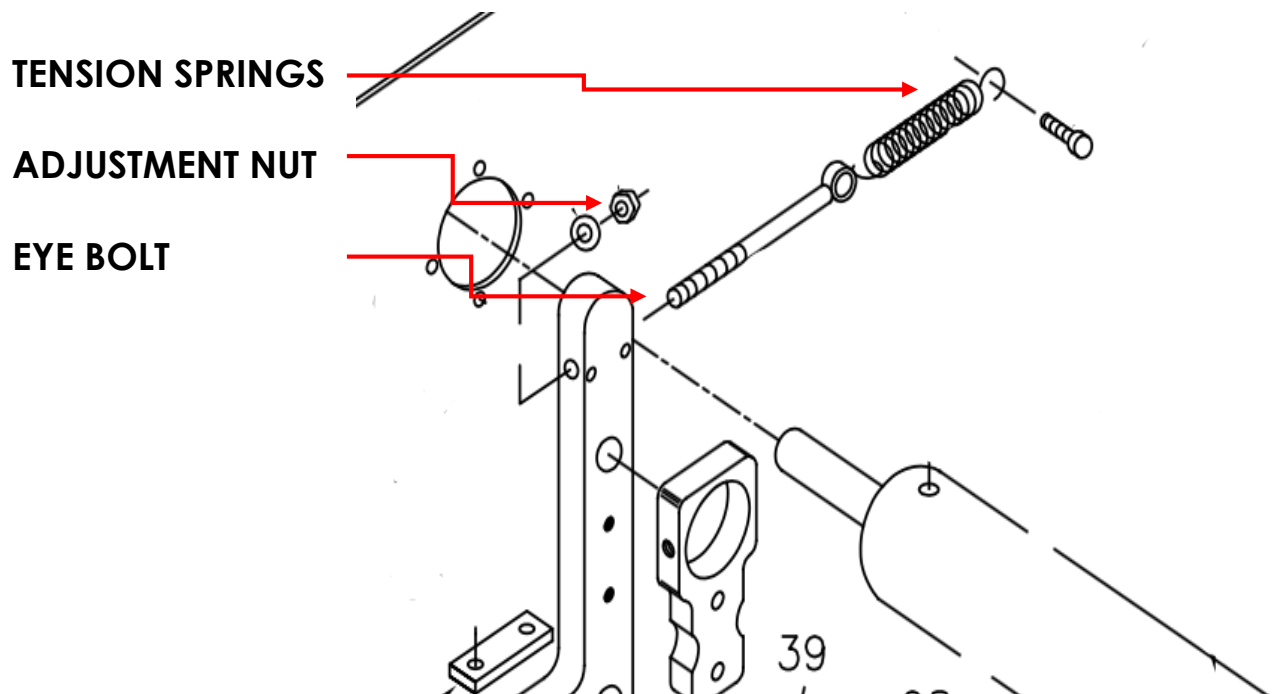
1. LOOSEN THE BOLTS CONNECTING THE MAYME LEVERS TO THE SLIDE BLOCKS.
2. SLIDE PULL BELTS ALL THE WAY OUT AWAY FROM THE TUBE.
3. MANUALLY CLOSE THE PULL BELTS VIA THE HAND WHEEL ON THE ACTUATOR.
4. SLIDE THE BELTS IN UNTIL THEY TOUCH THE TUBE.
5. COMPRESS THEM AGAINST THE TUBE AN ADDITIONAL 1/4" TO 1/2".
6. TIGHTEN THE BOLTS AND CHECK BOTH SIDES FOR SAME TENSIONING.





## HOW TO ADJUST NIP ROLLER

1. LOCATE THE 2 TENSIONING SPRINGS ON THE LEFT AND RIGHT SIDE OF THE NIP ROLLER.
2. THE SPRINGS CAN BE LOOSENED OR TIGHTENED VIA THE 1/2" NUTS ON THE TENSIONING EYE BOLTS.
3. SPRINGS SHOULD MAINTAIN AN 1/8" GAP BETWEEN COILS WHEN THE NIP ROLLER IS CLOSED.





## ORDER OF OPERATIONS

THE FOLLOWING IS THE ORDER OF OPERATIONS FOR A FLANGE GUSSETED BAG.

1. JAW OPEN
2. FILM DRIVE
3. VERTICAL SEAL HEATERS
4. ZIPPER WHEELS
5. ULTRASONICS
6. GUSSET
7. BAG STRETCHER
8. JAW CLOSE
9. HORIZONTAL SEAL HEATERS
10. CUTTER BLADE
11. PRODUCT ARRIVAL

THE PRODUCT ARRIVAL SHOULD BE SET FOR THE PRODUCT TO ARRIVE JUST AFTER THE JAW CLOSES AND MUST FULLY ACCUMULATE ON THE JAW BEFORE THE JAW REOPENS.

THE PACMAC VFFS RELIES ON PROPER SETUP TO ACHIEVE MAXIMUM PERFORMANCE. PLEASE REFER TO THE PACMAC VFFS START UP PROCEDURE FOR MORE INFORMATION ON MACHINE START UP.

### DEFINITION OF TERMS

BPM	BAGS PER MINUTE
DWELL	UNIT OF TIME IN WHICH AN ASSEMBLY IS IN OPERATION.
DISPLAY STATUS	REFERENCE SCREEN WITH REAL TIME INFORMATION FOR BAG MAKING AND TROUBLESHOOTING. FOUND IN THE TOP RIGHT HAND SIDE OF THE COMPUTER SCREEN.



## TIMING CONSIDERATIONS

### JAW OPEN.

- TIMED TO OPEN AT THE BEGINNING OF THE CYCLE. IN SPEEDS 50 BPM AND FASTER THE JAW WILL OPEN AT THE VERY END OF THE CYCLE.
- NEEDS TO BE FULLY OPEN BEFORE FILM DRIVE STARTS.
- OPENING IS ADJUSTABLE IN SERVO SETUP SCREEN.
- TYPICAL TIMING. \_\_\_\_\_ **140-0**

### FILM DRIVE.

- TIMED TO START AFTER THE JAW BECOMES FULLY OPEN.
- FILM SPEED ADJUSTS HOW FAST THE FILM DRIVES. SHOULD BE SET TO 2600 UNLESS ADVISED OTHERWISE BY A PACMAC REP.
- FILM DRIVE, FILM SPEED, AND BAGS PER MINUTE SETS THE FILM DRIVE END DEGREE IN THE DISPLAY STATUS SCREEN. THIS VALUE IS USEFUL FOR TIMING OTHER ASSEMBLIES.
- NOTHING SHOULD TOUCH THE FILM UNTIL THE FILM HAS COME TO A COMPLETE STOP.
- TYPICAL TIMING. \_\_\_\_\_ **20**

### VERTICAL HEATER

- TIMED TO MEET THE FILM AS IT STOPS.
- MOST FILMS REQUIRE 100 DEGREES OF DWELL TIME.
- DWELL TIME DOESN'T START UNTIL THE HEATERS TOUCH THE FILM.
- TEMPERATURE RANGES DEPENDING ON FILM AND ZIPPER THICKNESS.
- FILM DRIVE END DEGREE – 40 = VERTICAL HEATER START TIME.
- FILM DRIVE END DEGREE + 100 = VERTICAL HEATER STOP TIME.
- TYPICAL TIMING \_\_\_\_\_ **100-300**

### VERTICAL COOLERS

- USED TO CURE THE SEAL AFTER HEATING.
- TIMED TO START AFTER THE VERTICAL SEAL HEATERS RETRACT.
- CAN BE TIMED TO COOL AT THE BEGINNING OF THE CYCLE.
- TYPICAL TIMING END OF CYCLE. \_\_\_\_\_ **300-359**
- TYPICAL TIMING BEGINNING OF CYCLE. \_\_\_\_\_ **1-100**



### **ZIPPER WHEELS**

- TIMED TO OPEN AT THE END OF THE FILM DRIVE.
- USED TO DRIVE ZIPPER AND RELEASE TENSION ON THE BAG. BEFORE SEALING TO PREVENT WRINKLES.
- FILM DRIVE END DEGREE ROUNDED UP TO THE NEAREST 5 OR 0 = ZIPPER WHEEL START TIME.
- ZIPPER WHEEL START TIME + 10 = STOP TIME.
- TYPICAL TIMING. \_\_\_\_\_ **140-150**

### **ULTRASONICS**

- TIMED TO PINCH THE FILM AFTER THE ZIPPER WHEELS RELEASE TENSION.
- USED TO FLATTEN THE ENDS OF THE ZIPPER FOR BETTER SEALS.
- CONSIST OF ZIPPER PINCH TIMING AND ZIPPER WELD TIMING.
- ZIPPER WHEEL END TIME = ZIPPER PINCH START TIME.
- PINCH TO 350 ALWAYS.
- ZIPPER PINCH START TIME = ZIPPER WELD START TIME.
- ZIPPER WELD START TIME PLUS 100 + ZIPPER WELD END TIME.
- GAP SHOULD BE SET TO .001, REFER TO THE PACMAC VFFS START UP PROCEDURE FOR MORE INFORMATION ON SETUP.
- TYPICAL TIMING ZIPPER PINCH. \_\_\_\_\_ **150-350**
- TYPICAL TIMING ZIPPER WELD. \_\_\_\_\_ **150-250**

### **GUSSET**

- TIMED TO EXTEND OUT AFTER THE FILM DRIVE BUT BEFORE THE JAW CLOSES.
- USED TO TUCK THE BOTTOM OF THE BAG TO CREATE A FLAT BOTTOM.
- FILM DRIVE END – 40 = GUSSET START TIME.
- RETRACT GUSSET AT 250 ALWAYS.
- SHOULD TUCK 1.5". REFER TO THE PACMAC VFFS START UP PROCEDURE FOR MORE INFORMATION ON SETUP.
- TYPICAL TIMING. \_\_\_\_\_ **100-250**



### **BAG STRETCHER**

- TIMED TO GO IN BEFORE THE FILM DRIVE STARTS AND RETRACT AFTER IT ENDS.
- USED TO REMOVE END SEAL WRINKLES.
- CONTAINS THE ZIPPER WHEELS.
- TYPICAL TIMING. \_\_\_\_\_ **0-125**

### **JAW CLOSE**

- TIMED TO CLOSE IMMEDIATELY AFTER THE BAG STRETCHER RETRACTS.
- SETS THE JAW CLOSE DEGREE FOR TIMING OTHER ASSEMBLIES.
- USED TO TRANSPORT THE HEATER BAR AND KNIFE BLADE, AND ALSO STAGE THE PRODUCT.
- JAW OPENING DISTANCE AND BAGS PER MINUTE AFFECT THIS TIMING.
- TYPICAL TIMING. \_\_\_\_\_ **140-0**

### **HORIZONTAL HEATERS**

- TIMED TO EXTEND AT 20 ALWAYS.
- MOST FILMS REQUIRE AT LEAST 100 DEGREES OF DWELL TIME.
- DWELL TIME DOESN'T START UNTIL JAWS BECOME CLOSED.
- JAW CLOSE DEGREE + 100 = HORIZONTAL SEAL STOP TIME.
- TYPICAL TIMING. \_\_\_\_\_ **20-300**

### **HORIZONTAL COOLERS**

- USED TO CURE THE SEAL AFTER HEATING.
- TIMED TO START AFTER THE HORIZONTAL HEATERS.
- TYPICAL TIMING. \_\_\_\_\_ **300-359**

### **CUTTER BLADE**

- TIMED TO EXTEND AFTER THE JAW CLOSE.
- WILL NOT FIRE IF TIMED BEFORE JAW CLOSE DEGREE.
- JAW CLOSE DEGREE + 5 = CUTTER BLADE START TIME
- RETRACT CUTTER BLADE WITH THE HEATER BARS.
- TYPICAL TIMING. \_\_\_\_\_ **200-300**

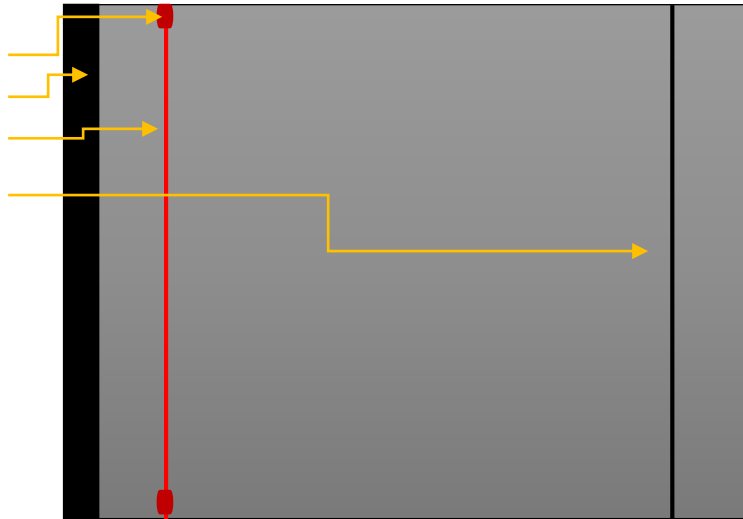
### **PRODUCT ARRIVAL**

- USED TO SIGNAL FOR PRODUCT.
- SHOULD BE TIMED SO PRODUCT LANDS ON JAW.
- CAN NOT BE TIMED WITHOUT WATCHING PRODUCT DROP.

## TROUBLESHOOTING WRINKLES

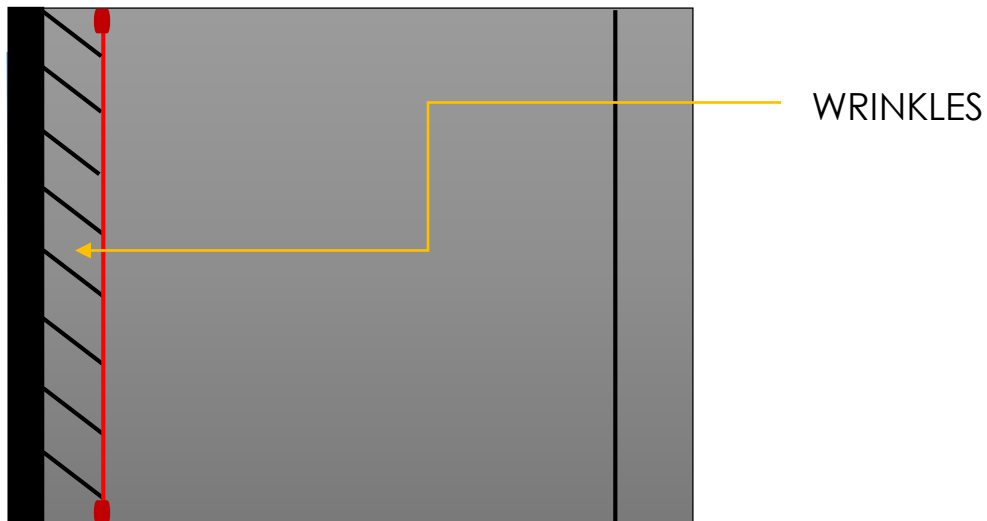
### BAG LAYOUT

- ULTRASONIC WELD
- HEADER SEAL
- ZIPPER BEAD
- GUSSET FOLD



### VERTICAL SEAL WRINKLES

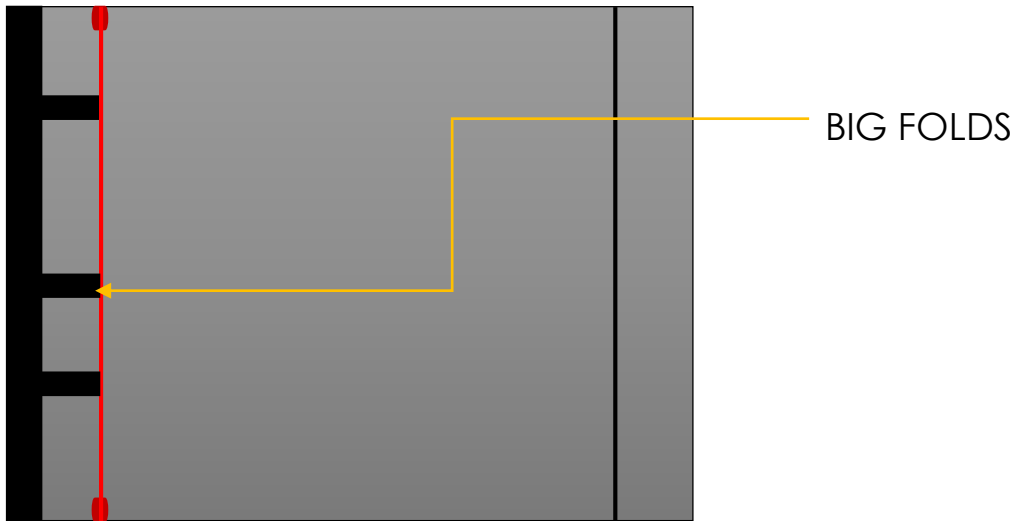
- DIAGONAL WRINKLES BETWEEN HEADER SEAL AND ZIPPER SEAL.



### POSSIBLE CAUSE

- ZIPPER WHEELS OVER PULLING. IF WHEELS ARE BRAND NEW THEY WILL NEED TO “WEAR IN” IF NOT, CHECK FOR OVER STICKINESS OF RUBBER AND THAT PROPER WHEELS ARE INSTALLED.
- CHECK MECHANICAL OPERATION AND TIMING.

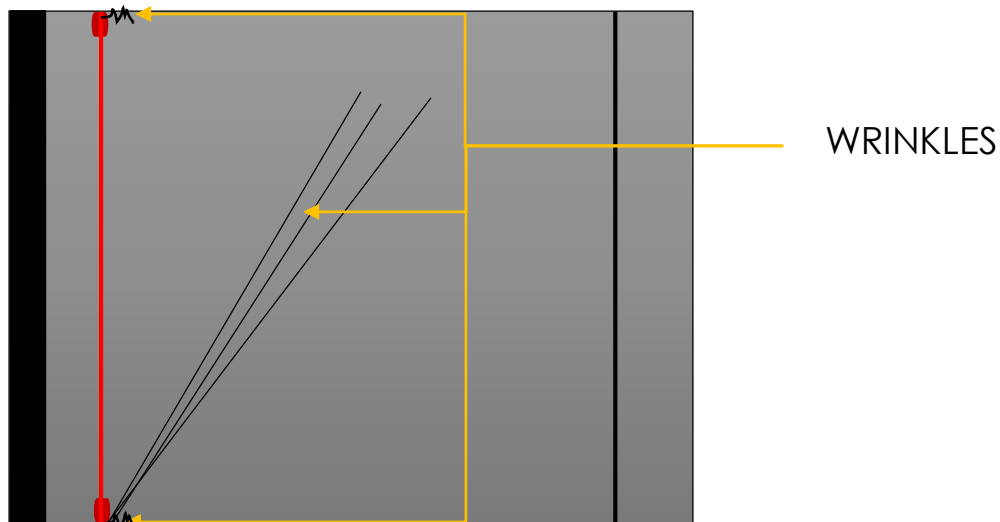
- HORIZONTAL FOLDS BETWEEN HEADER SEAL AND ZIPPER.



#### POSSIBLE CAUSES

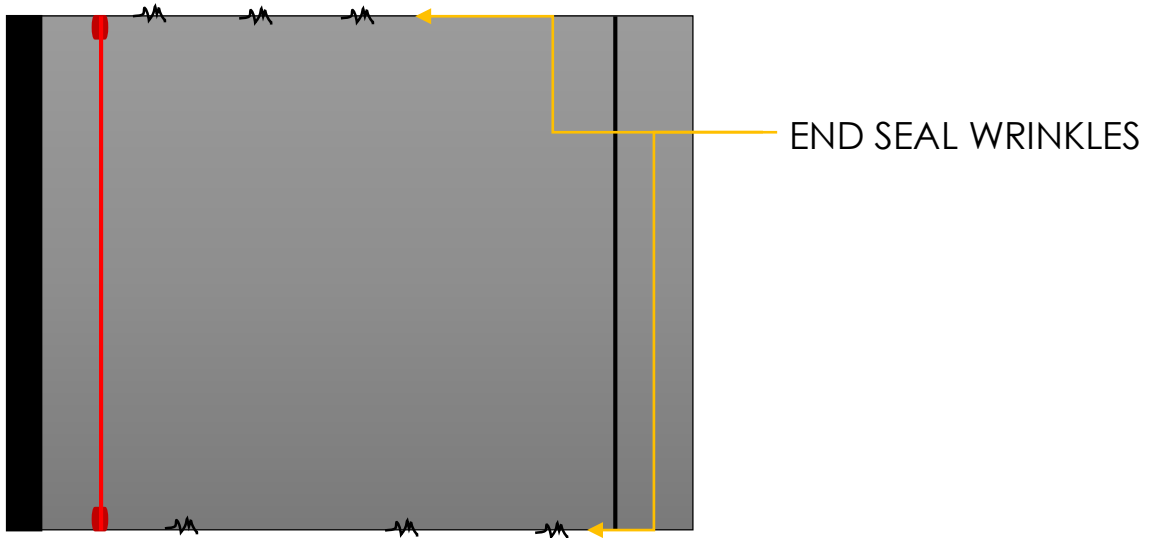
- ZIPPER WHEELS ARE NOT GRIPPING CAUSING THE ZIPPER TO SLIP BACK AND DRAW UP THE FILM.
- CHECK MECHANICAL OPERATION, TIMING, AND CONDITION OF WHEELS.

#### END SEAL WRINKLES



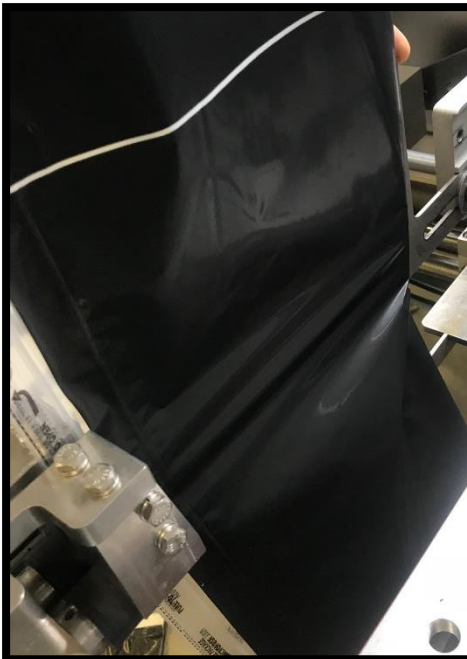
#### POSSIBLE CAUSE

- ZIPPER WHEELS NOT RELEASING TENSION.
- CHECK MECHANICAL OPERATION AND TIMING.



### POSSIBLE CAUSES

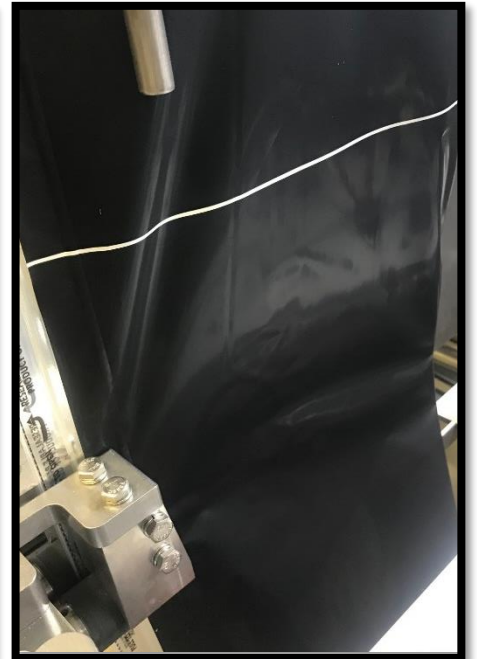
- LACK OF TENSIONING BETWEEN BAG STRETCHER AND GUSSET.
- SET GUSSET DEPTH TO 1.5"
- SET BAG STRETCHER TO PULL TIGHT.



**TOO TIGHT**

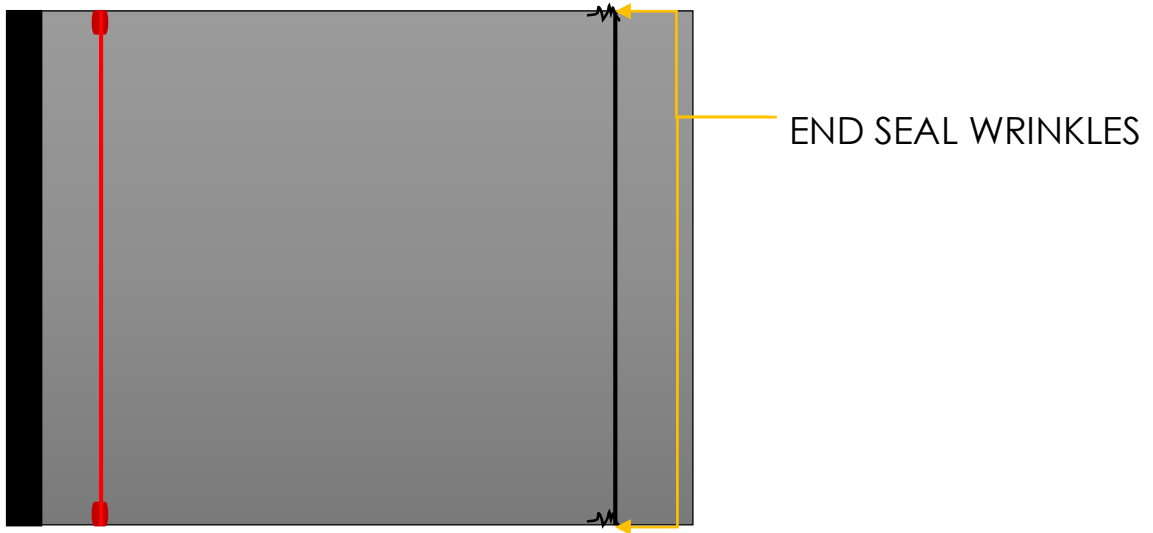


**TOO LOOSE**



**GOOD**





**POSSIBLE CAUSES**

- GUSSET TUCKING TOO DEEP.
- BAG STRETCHER STRETCHING TOO TIGHT.



## **TROUBLESHOOTING FILM DRIVE (MECHANICAL)**

FOR ALL CLEAR FILM LENGTH RELATED ISSUES, FIRST ENSURE THAT THE COMPUTER IS SET TO CLEAR FILM AND THAT THE FILM LENGTH IS SET CORRECTLY.

### **SHORT BAGS ON CLEAR FILM**

#### **POSSIBLE CAUSES**

- **FILM SLIPPING**

- CLEAN PULL BELTS.
- CHECK PULL BELT TENSION.
- CLEAN NIP AND DRIVE ROLLERS.
- CHECK TENSION ON NIP ROLLER SPRINGS.
- BRAKE TOO TIGHT CAUSING FILM UNWIND TO "TOP OUT."
- REMOVE COVERS, CHECK TRANSMISSION BELTS AND SERVO COUPLINGS.

FOR ALL PRINTED FILM RELATED ISSUES, FIRST ENSURE THAT THE COMPUTER IS SET TO PRINTED FILM AND THAT THE BAG LENGTH = THE DISTANCE BETWEEN THE EYE MARKS ON THE FILM.

### **SHORT BAGS PRINTED FILM**

#### **POSSIBLE CAUSES**

- **FALSE INPUTS**

- CHECK THAT THE EYE IS CENTERED OVER THE EYE MARK ON THE FILM AND THAT THE EYE IS SEEING THE EYE MARK AS IT PASSES THROUGH AND NOT SEEING SOMETHING ELSE.
- RETEACH THE EYE BY HOLDING THE BUTTON ON THE SIDE OF THE EYE FOR 3 SECONDS OVER THE FILM BACKGROUND AND 3 SECONDS OVER THE EYE MARK.

- **PRINTED SET UP NOT COMPLETED**

- WHEN CHANGING FROM ONE FILM TO THE NEXT, PRINTED SETUP MUST BE RUN TO UPDATE THE BAG LENGTH.



## **LONG BAGS PRINTED FILM.**

### **POSSIBLE CAUSES**

- **MISSED EYE MARK**

- CHECK THAT EYE IS CENTERED OVER THE EYE MARK ON THE FILM.
- CHECK THAT THE EYE IS SEEING THE EYE MARK AS IT PASSES THROUGH.
- RETEACH THE EYE BY HOLDING THE BUTTON ON THE SIDE OF THE EYE FOR 3 SECONDS OVER THE FILM BACKGROUND AND 3 SECONDS OVER THE EYE MARK.

- **PRINTED SET UP NOT COMPLETED**

- WHEN CHANGING FROM ONE FILM TO THE NEXT, PRINTED SETUP MUST BE RUN TO UPDATE THE BAG LENGTH.
- REFER TO THE 2015PM UL WIRING DIAGRAMS TO CHECK WIRING.

## **TROUBLESHOOTING VERTICAL HEADER SEAL**

### **WEAK SEALS**

#### **POSSIBLE CAUSES**

- **LOSS OF PRESSURE**

- CHECK THE CONDITION OF THE SPRINGS ON THE HEADER HEATER BAR.
- ENSURE THAT THE ACTUATOR IS ADJUSTED PROPERLY AND IS COMPLETELY LOCKED OVER WHEN THE ACTUATOR IS IN THE CLOSED POSITION.
- ENSURE THAT THE BARS ARE HITTING SQUARE. THE ADJUSTMENT BOLTS ARE ON THE FRONT OF THE HEATER BAR STRAP.

- **LOSS OF HEAT**

- CHECK HEAT SETTING ON THE TEMPERATURE CONTROLLER.
- CHECK HEAT ROD.
- CHECK THERMOCOUPLE.
- CHECK HEATER CIRCUIT.



## **TROUBLESHOOTING VERTICAL ZIPPER SEAL**

- **LOSS OF PRESSURE**
  - CHECK THE CONDITION OF THE SPRINGS ON THE HEADER HEATER BAR.
  - CHECK ALIGNMENT WITH ZIPPER GUIDE.
  - ENSURE THAT THE ACTUATOR IS ADJUSTED PROPERLY AND IS COMPLETELY LOCKED OVER WHEN THE ACTUATOR IS IN THE CLOSED POSITION.
- **LOSS OF HEAT**
  - CHECK HEAT SETTING ON THE TEMPERATURE CONTROLLER.
  - CHECK HEAT ROD.
  - CHECK THERMOCOUPLE.
  - CHECK HEATER CIRCUIT.
  - REFER TO THE 2015PM UL WIRING DIAGRAMS TO CHECK WIRING.

## **TROUBLESHOOTING HORIZONTAL SEAL**

- **LOSS OF PRESSURE**
  - CHECK HEATER BAR CYLINDERS FOR AIR LEAKS.
  - ENSURE THAT HEATER BARS ARE FULLY EXTENDING
  - IN THE MANUAL SCREEN, RAPIDLY ACTIVATE THE HORIZONTAL HEATER BARS TO TEST VALVE RESPONSE. SHOULD BE SIMULTANEOUSLY ACTIVATED AS BUTTON IS PRESSED.
  - CHECK MAYME LEVER BEARINGS.
  - CHECK JAW CLOSE OFFSET. THIS SHOULD BE SET TO MAINTAIN A 3/8" GAP BETWEEN THE MAYME LEVERS WHILE THE JAW IS IN THE CLOSED POSITION.
  - CHECK JAW SERVO MOTOR COUPLING FOR SLIP.
- **LOSS OF HEAT**
  - CHECK HEAT SETTING ON THE TEMPERATURE CONTROLLER.
  - CHECK HEAT ROD AND THERMO COUPLE.
  - CHECK HEATER CIRCUIT.



## **TROUBLESHOOTING ULTRASONICS**

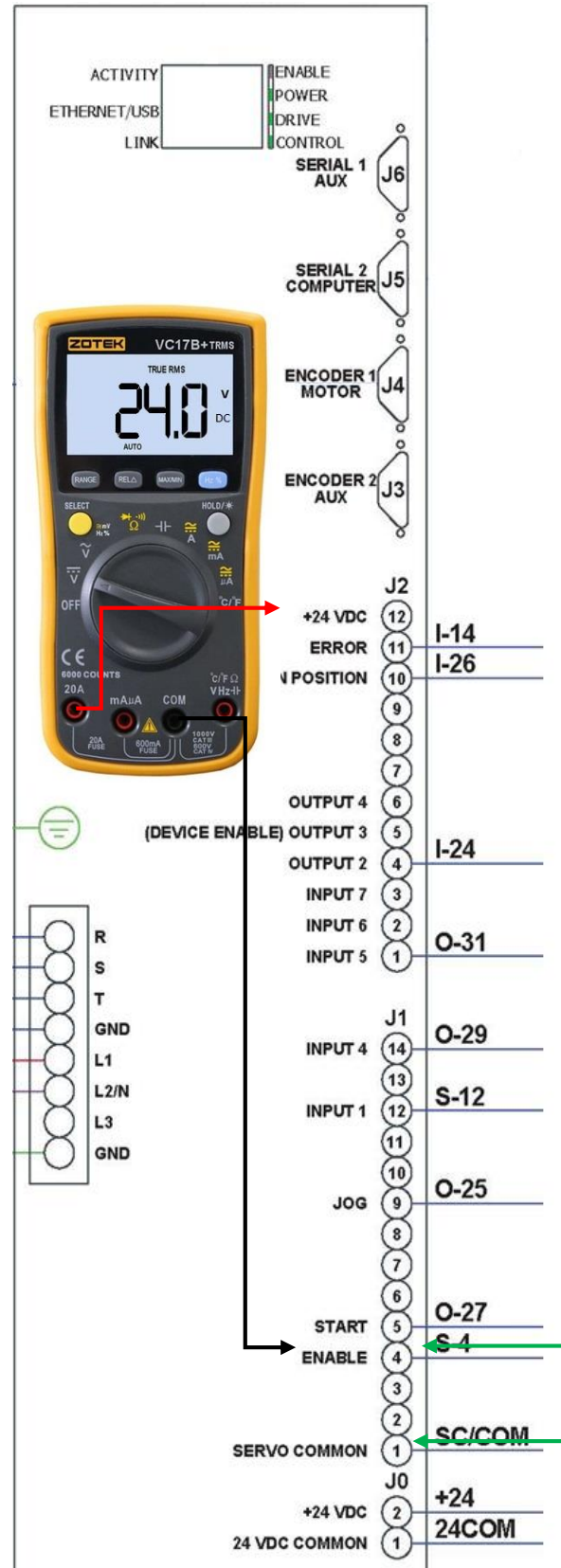
- **NO SMASH**
  - SET ULTRASONICS GAP TO .010.
  - ENSURE CYLINDER IS WORKING PROPERLY.
  - CHECK ULTRASONICS TIMING.
  - ENSURE ULTRASONICS POWER SUPPLY IS TURNED ON.
  - REFER TO THE 2015PM UL WIRING DIAGRAM AND CHECK WIRING.
- **TEAR DROP SHAPE**
  - SQUARE UP THE HORN AND ANVIL.

**REFER TO PAGE 51 FOR MORE INFORMATION ON  
ULTRASONIC ADJUSTMENTS.**



## TROUBLESHOOTING FILM DRIVE

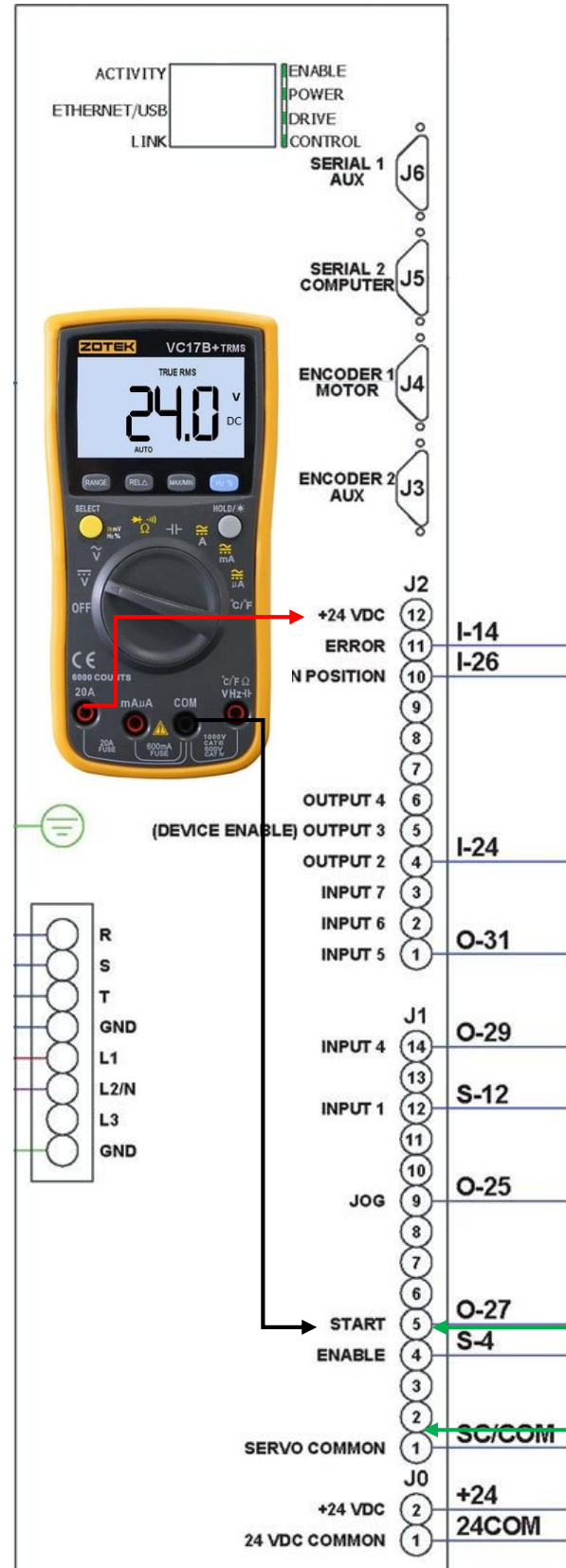
- **NO ENABLE LIGHT**
  - PULL E-STOP BUTTON OUT
  - CHECK THAT PLC **S02** IS LIT GREEN  
**IF NOT SEE PAGE 100**
  - CHECK THAT MOTOR CONTACTORS ARE ENERGIZED
  - CHECK FOR 24VDC BETWEEN **J1 PIN 4** AND **J2 PIN 12**
  - TO FORCE AN ENABLE, TAKE A JUMPER AND CONNECT **J1 PIN 1** TO **J1 PIN 4**
  - IF THE ENABLE COMES ON AT THIS POINT THEN THE CONTROLLER IS OK
  - IF THE ENABLE LIGHT DOESN'T COME ON, THEN YOU WILL NEED TO REPLACE YOUR CONTROLLER





• **NO FILM DRIVE**

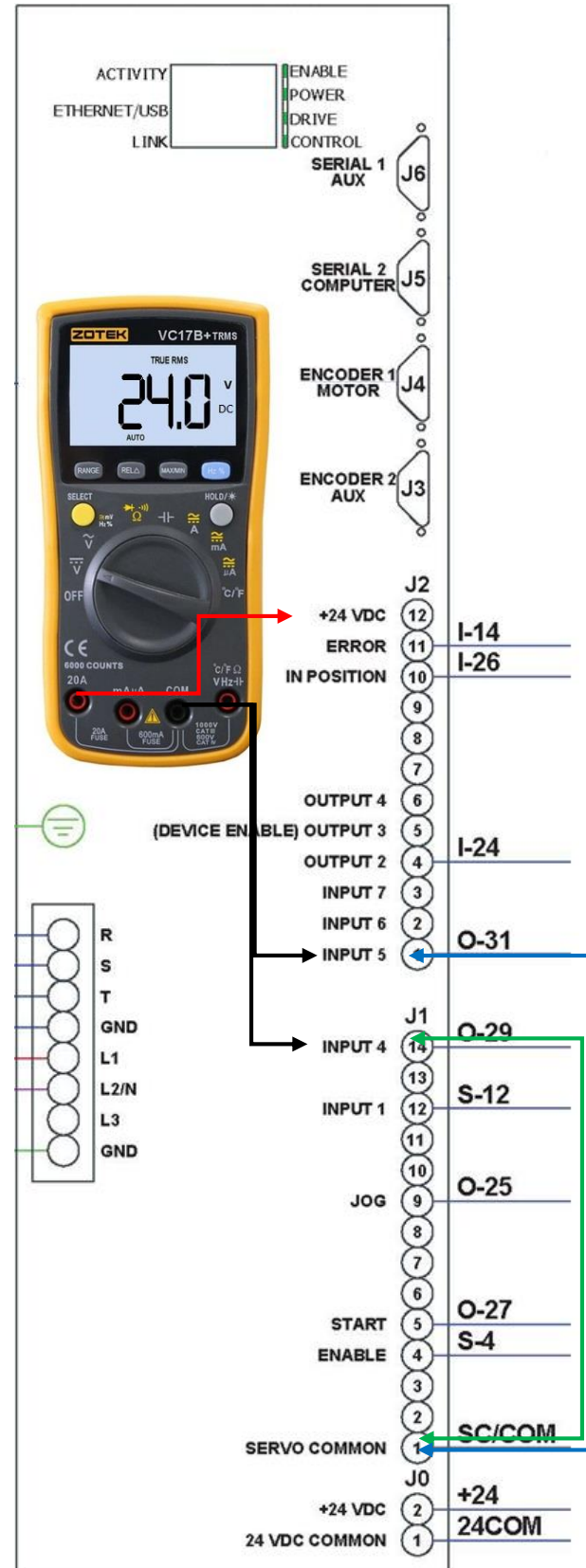
- ENSURE THAT THE OUTPUT IS WORKING PROPERLY BY TESTING THE FILM DRIVE FROM THE MANUAL SCREEN. **IF NOT SEE PG 100**
- WHEN THE OUTPUT IS ON YOU SHOULD READ 24VDC FROM **J1 PIN 5** TO **J2 PIN 12**
- TO BYPASS THE OUTPUT BOARD AND TEST THE SERVO SYSTEM INDEPENDENTLY PLACE A JUMPER FROM **J1 PIN 1** TO **J1 PIN 5** THE FILM SHOULD DRIVE EVERY TIME IT IS TOUCHED.





- **ONLY PULLING 8" OR 15" BAG**

- INSPECT THE OUTPUT BOARD TO ENSURE THAT
  - SELECT LINE 1** IS ON FOR **CLEAR**
  - SELECT LINE 2** IS ON FOR **PRINTED**
- CHECK FOR 24VDC BETWEEN **J1 PIN 14 - J2 PIN 12** FOR **CLEAR**
- **J2 PIN 1 - J2 PIN 12** FOR **PRINTED**
- IF VOLTAGE IS PRESENT AT BOTH POINTS THE MACHINE WILL RUN A DEFAULT 15" BAG, IF VOLTAGE IS NOT PRESENT AT EITHER POINTS THE RESULTS WILL BE A DEFAULT 8" BAG.
- IF BOTH OUTPUTS ARE OFF, BYPASS THE OUTPUT BOARD BY PLACING A JUMPER FROM **J1 PIN 1** TO **J1 PIN 14** FOR CLEAR OR **J1 PIN 1** TO **J2 PIN 1** FOR PRINTED.
- IF BOTH OUTPUTS ARE ON, BYPASS THE OUTPUT BOARD BY REMOVING THE WIRE FOR THE MODE YOU DO NOT WANT. **I-31** FOR PRINTED **I-29** FOR CLEAR

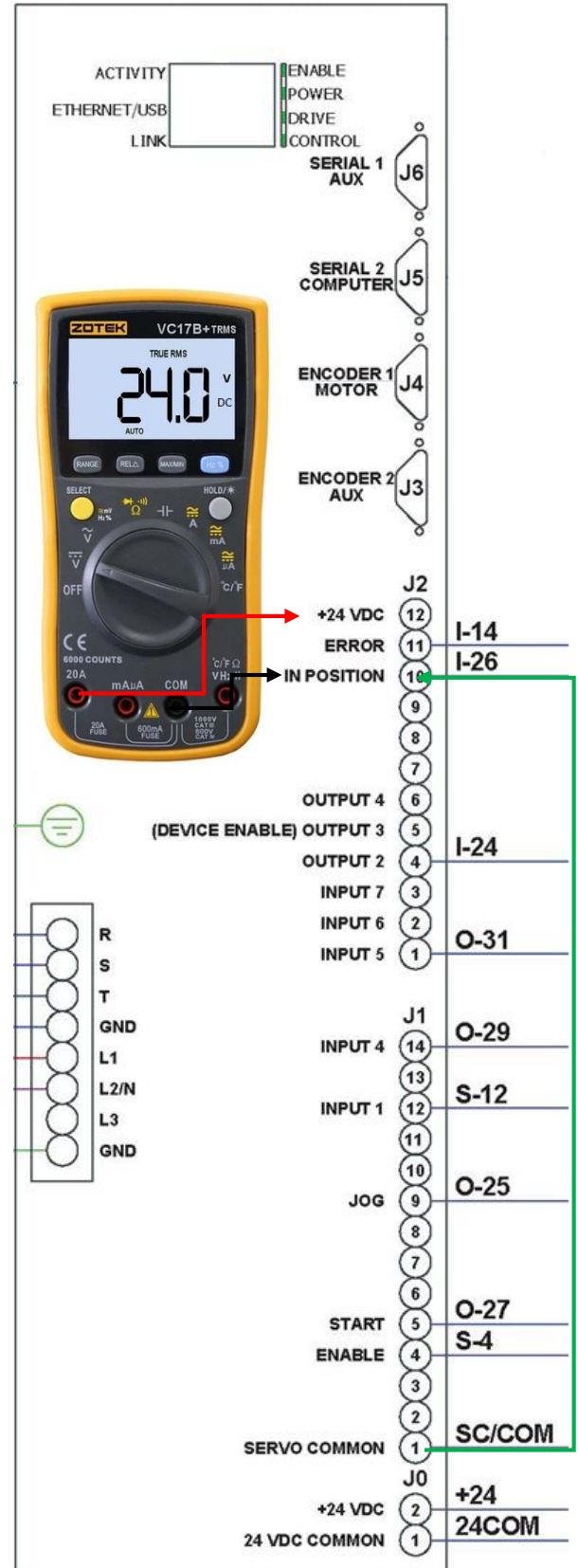






• **SERVO NOT IN POSITION**

- WITH THE MACHINE RESET CHECK FOR 24VDC BETWEEN **J2 PIN 12** AND **J2 PIN 10**
- IF VOLTAGE IS PRESENT, SEE PAGE 100
- IF VOLTAGE IS NOT PRESENT YOU CAN BYPASS THE INPUT BOARD BY PLACING A JUMPER WIRE FROM **J1 PIN 1** TO **J2 PIN 10**





## **TROUBLESHOOTING INPUT BOARD**

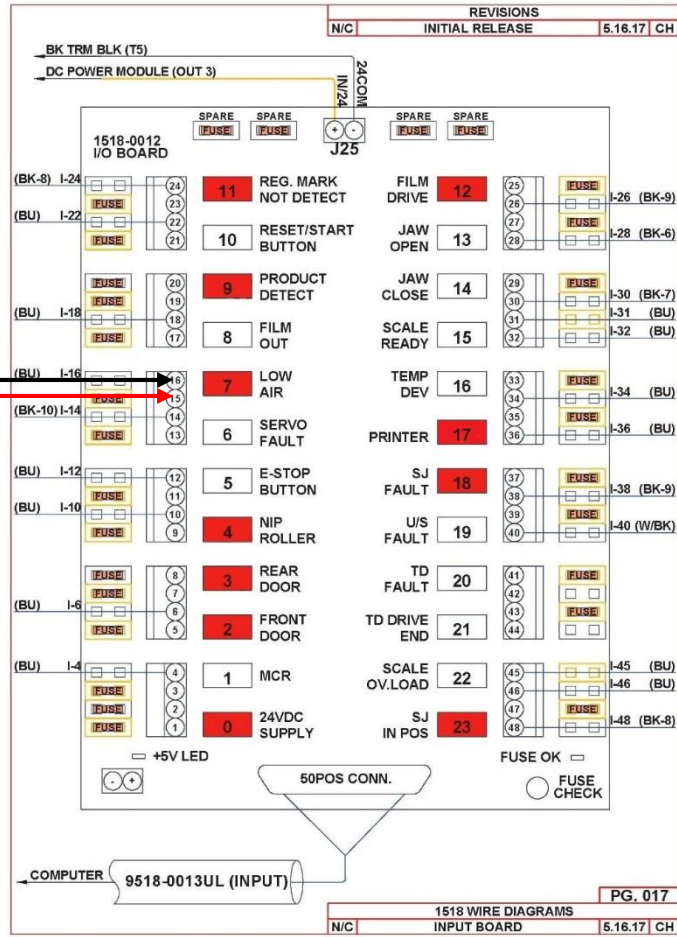
AN INPUT IS AN EXTERNAL DEVICE USED TO SIGNAL THE MACHINE HMI.

A FACTORY INPUT IS WIRED TO SWITCH A 24COM TO ACTIVATE AN INPUT MODULE, WHICH ULTIMATLEY SENDS A 5VDC SIGNAL THROUGH THE INPUT BOARD AND CABLE TO THE COMPUTER.

BELOW IS A DESCRIPTION ON HOW TO CHECK AN INPUT.

### **• INPUT CHECK LIST**

- ACTIVATE THE INPUT YOU WISH TO CHECK.
- CHECK THE LED LIGHT ON THE INPUT MODULE TO SEE IF IT IS LIT.
- IF NOT, CHECK FOR 24VDC ON THE INPUT BOARD AS SHOWN ON THE ILLUSTRATION ON THE NEXT PAGE.
- IF 24VDC IS NOT FOUND, THERE IS A PROBLEM WITH THE DEVICE SIGNALING OR THE COMMUNICATION CABLE FROM THAT DEVICE. IF 24VDC IS FOUND, REPLACE INPUT MODULE.
- IF THE LED ON THE INPUT MODULE IS LIT AND 24VDC IS FOUND, THEN CHECK THE DISPLAY STATUS SCREEN TO SEE IF THE CORRESPONDING INPUT SWITCHES AS YOU ACTIVATE AND DIACTIVATE THAT INPUT. I.E OPEN AND CLOSE FRONT DOOR.
- IF THERE IS NO INDICATION ON THE DISPLAY STATUS SCREEN THEN THERE IS A PROBLEM WITH THE INPUT BOARD, INPUT CABLE, OR HMI.



NO INDICATION OF INPUT COMMUNICATION TO THE HMI.

```

Friday, June 24, 2016 5:36:38 PM
DISPLAY STATUS
Input#  Function      Input#  Function      θ°
0      24 vdc             12     Film Drive End  θ°
1      MCR Detect         13     Jaws Open       θ°
2      Front Door        14     Jaws Close      θ°  0 msec
3      Back Door         15     Scale Ready     θ°  0 msec
4      Nip Roller Open   16     Temperature Deviation
5      E-Stop            17     Spare 17
6      Servo Fault       18     Spare 18
7      Low Air           19     Spare 19
8      Low Film          20     Spare 20
9      Product Detect    22     Scale Overload Check  θ°
10     Reset/Start Button
11     Reg. Mark Not Detected

TOUCH SCREEN TO EXIT
  
```



## **TROUBLESHOOTING OUTPUT BOARD**

AN OUTPUT IS A DRY CONTACT SIGNAL GENERATED FROM THE HMI TO ACTIVATE AN EXTERNAL DEVICES BASED ON THE MACHINE CYCLE.

A FACTORY OUTPUT IS WIRED TO SWITCH ONE SIDE OF A DC CIRCUIT.

AN OUTPUT RELAY SHOULD ONLY BE LIT IF THE MACHINE HAS CYCLED TO THE SELECTED TIMING OF THE OUTPUT OR IF THE OUTPUT IS MANUALLY ACTIVATED VIA THE MANUAL SCREEN.

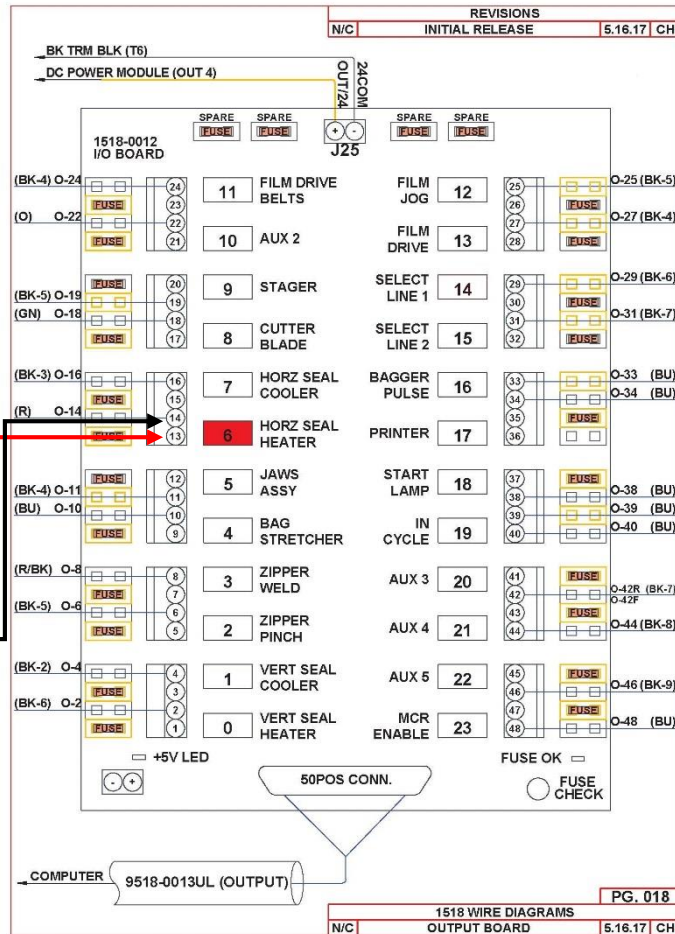
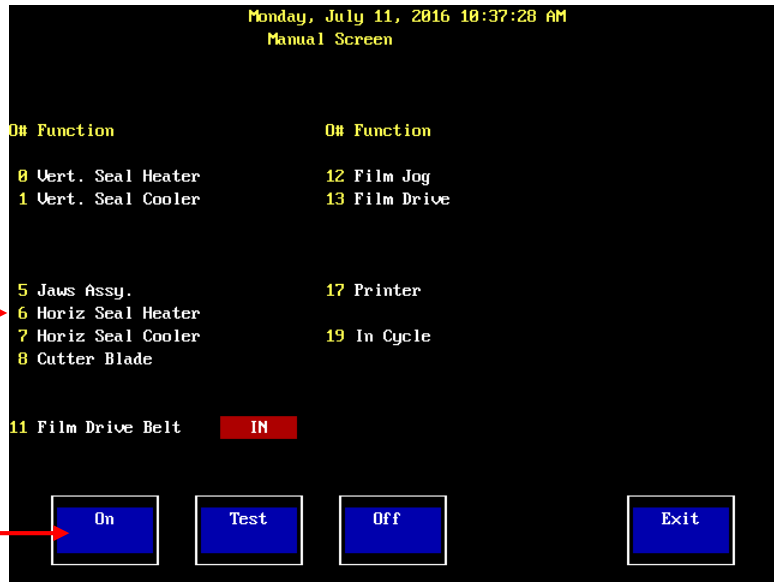
BELOW IS A DESCRIPTION OF HOW TO CHECK AN OUTPUT.

### **• OUTPUT CHECK LIST**

- ACTIVATE THE OUTPUT VIA THE MANUAL SCREEN SHOWN ON THE NEXT PAGE.
- THE RED LIGHT ON THE OUTPUT SHOULD LITE UP IF THE COMMUNICATION IS GOOD FROM THE COMPUTER.
- IF THE OUTPUT DOES NOT LITE UP, FIRST REPLACE THE RELAY.
- IF THIS DOES NOT FIX THE PROBLEM THEN THERE IS A PROBLEM WITH THE HMI, OUTPUT CABLE, OR OUTPUT BOARD.
- IF THE LITE COMES ON BUT THE ASSEMBLY DOES NOT MOVE, CHECK FOR CONTINUITY AS SHOWN ON THE ILLUSTRATION ON THE NEXT PAGE.
- IF YOU DO NOT HAVE CONTINUITY, REPLACE THE REPLAY.



HIGHLIGHT AND TOUCH ON.



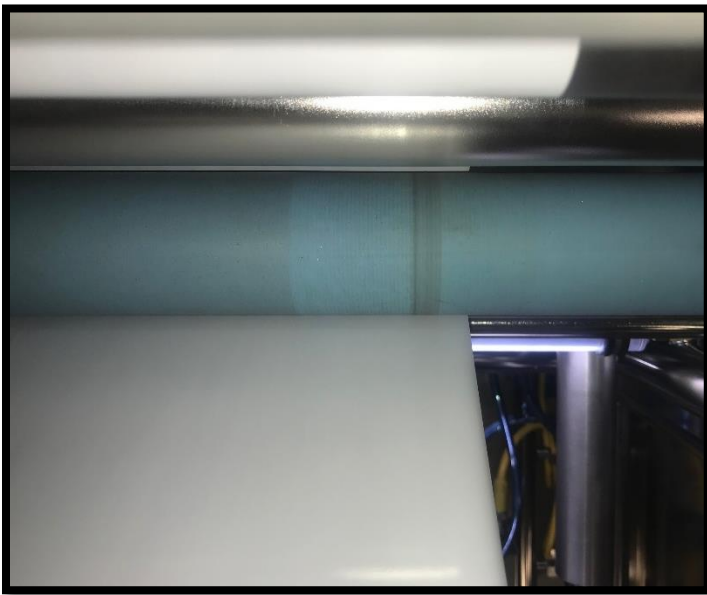
## START UP GUIDE

### **THOROUGHLY DRY OFF THE MACHINE.**

- CONCENTRATE ON ALL ROLLERS, FORMING TUBE, AND ANY ELECTRICAL PLUGS.

### **CLEAN NIP/DRIVE ROLLERS AND PULL BELTS.**

- CLEAN WITH ALCOHOL BASED CLEANERS.
- ALL DISCOLORATION SHOULD COME OFF.



### **TURN ON MAIN AIR.**

- PACMAC SPECIFICATIONS REQUIRE THAT THE MACHINE AIR PRESSURE BE 100 PSI WITH 50 CFM FOR OPTIMUM PERFORMANCE.
- DRAIN ANY AIR ACCUMULATORS OF ANY WATER BUILD UP IF APPLICABLE.
- CRACK AIR BALL VALVE ON HALF WAY TO DRAIN ANY WATER.





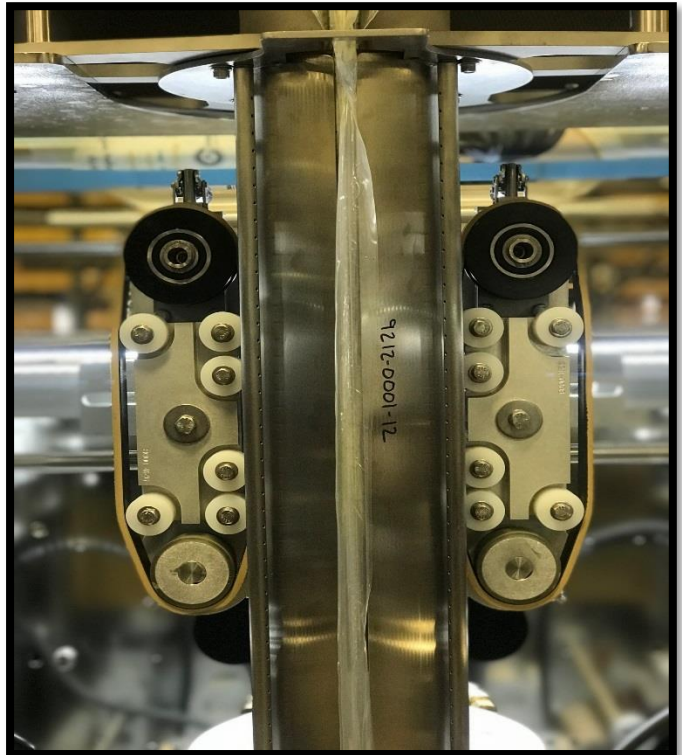
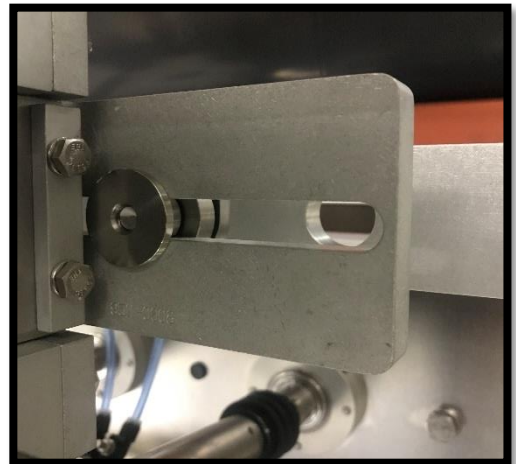
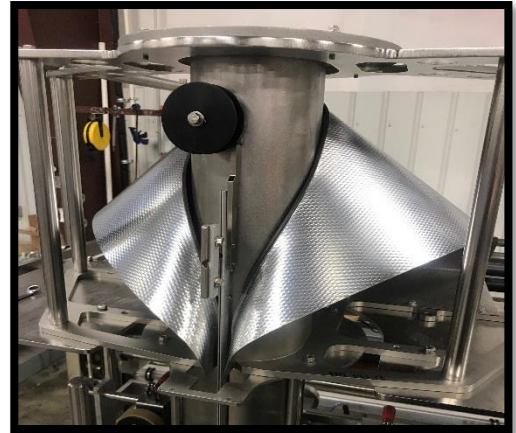


## INSTALL THE DESIRED TUBE

- THE TUBE MOUNTS TO THE TOP PLATE OF THE MACHINE AND SECURES WITH 2, 5/16-18 BOLTS.

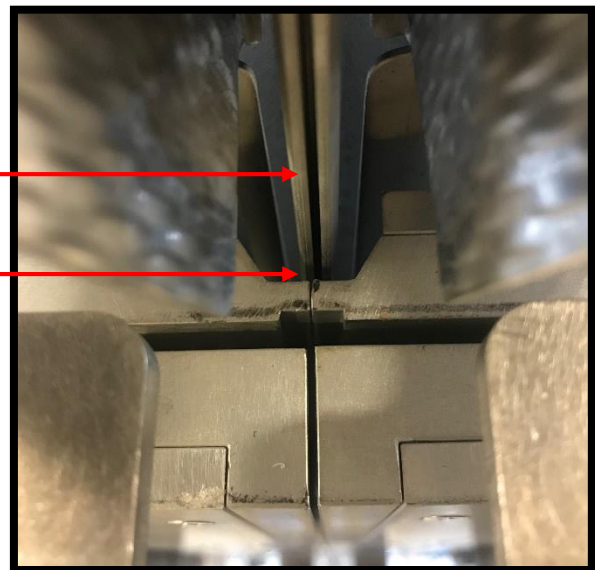
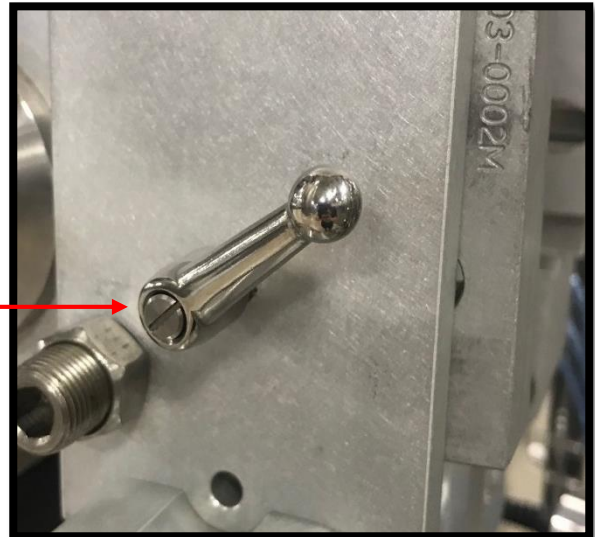
## ADJUST THE PULL BELTS

- LOOSEN THE 2, 3/8-16 BOLTS ON THE BACK OF THE PULL BELTS.
- MANUALLY CLOSE THE PULL BELTS VIA THE HAND WHEEL ON THE BACK SIDE OF THE ASSEMBLY.
- SLIDE THE BELTS IN UNTIL THEY TOUCH THE TUBE.
- SLIDE IN AN ADDITIONAL 1/4" TO 1/2" FOR PROPER ADJUSTMENT.



## SET THE VERTICAL HEATER

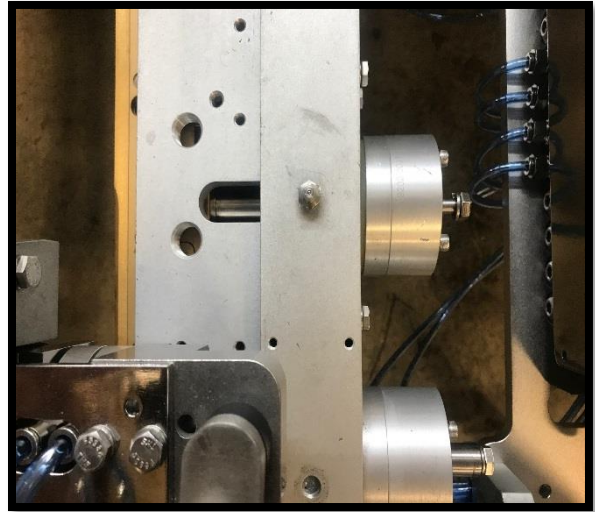
- WITH THE TUBE SLIDE ALL THE WAY IN AND IN THE PROPER POSITION, CLOSE THE VERTICAL HEATER AND SECURE LATCH.
- LOOSEN THE HEATERS VIA THE 2 HANDLES ON EACH BAR.
  - **HANDLE**
- SLIDE THE BARS IN UNTIL THEY ARE AN **1/8"** OF THE ZIPPER GUIDE. PARALLEL WITH THE TUBE FROM TOP TO BOTTOM.
  - **ZIPPER GUIDE**
  - **1/8 GAP**
- OPEN THE VERTICAL HEATER ASSEMBLY AND LINE THE OTHER SIDE UP EVENLY AND TIGHTEN DOWN.
- THE BARS SHOULD HIT ON CENTER LINE WITH THE ZIPPER GUIDE FROM TOP TO BOTTOM.





## **INSTALL HORIZONTAL HEATER BARS**

- HEATER BARS SHOULD BE CLEANED AND ASSESSED FOR PROPER FUNCTION BEFORE INSTALLING.
- THE RIGHTHAND HEATER BAR HAS A DEEPER GROOVE FOR THE CUTTER BLADE.
- CORD GRIP SHOULD BE TOWARD THE BACK OF MACHINE WHEN INSTALLED.
- THE TAPERED SIDE SHOULD BE TO THE FRONT OF THE MACHINE.
- SLIDE BARS IN AND SECURE TO CYLINDER VIA THE 5/16-18 BOLTS.



## **CHECK CONNECTIONS**

- IF THE CONNECTIONS ARE NOT TIGHT THEY WILL VIBRATE LOOSE AND GIVE YOU AN ERROR ON YOUR TEMPERATURE CONTROLLER.
- MAKE SURE THE PLUGS ARE FREE OF DEBRIS AND WATER.

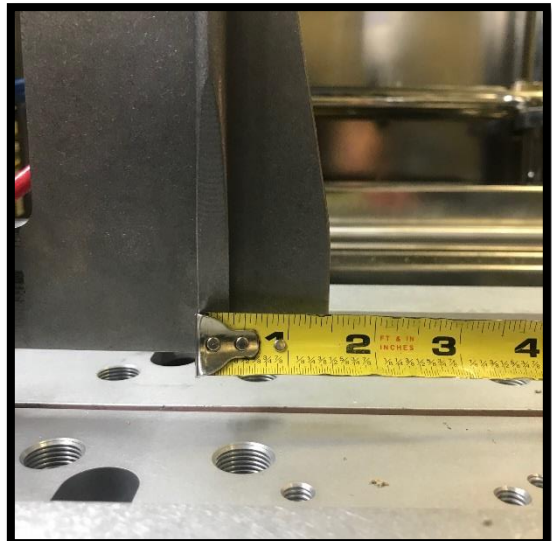


## INSTALL GUSSETS

- SLIDE TOP GUSSET MOUNT OVER EXPOSED ALL THREAD.
- SLIDE LOWER GUSSET INTO SLOT ON BOTTOM.
- SCREW KNOB BACK ON BUT DON'T TIGHTEN.

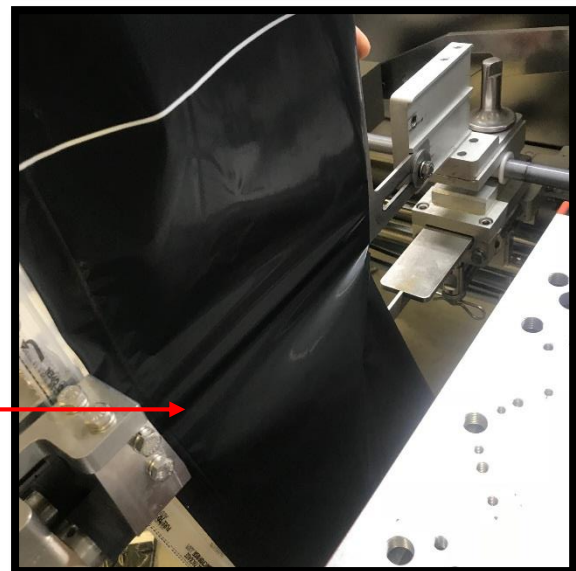
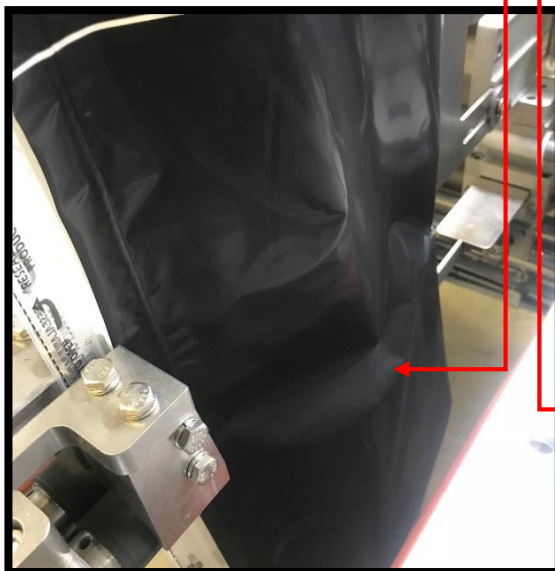
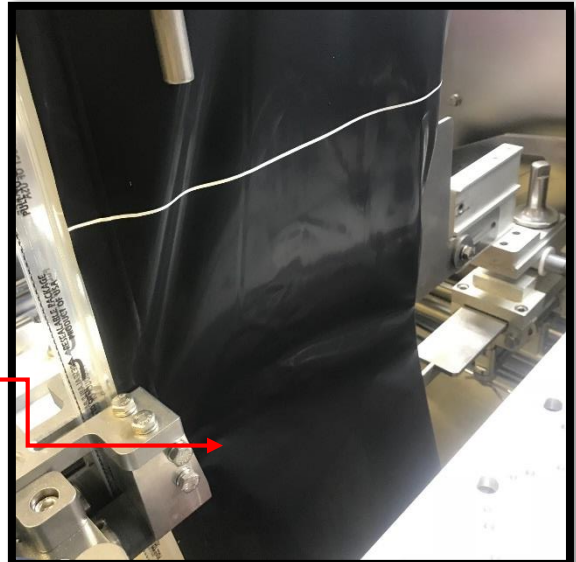
## SET GUSSET DEPTH

- EXTEND THE CYLINDER FORWARD TO EXTEND THE GUSSET IN BETWEEN THE SPREADER RODS.
- THE DISTANCE FROM THE BACKSIDE OF THE SPREADER ROD AND THE FRONT SIDE OF THE GUSSET RAM SHOULD MEASURE 1.5".
- THE TOP AND BOTTOM SHOULD BE SET TO THE SAME DISTANCE.
- THE SPREADER ROD SHOULD STRADDLE THE TOP GUSSET RAM ON CENTER LINE WITH THE JAW CLOSED.
- ONCE ALL IS CHECKED AND SET PROPERLY, TIGHTEN THE BACK KNOB USING A ½" WRENCH TO SECURE.



## ADJUST THE BAG STRETCHER

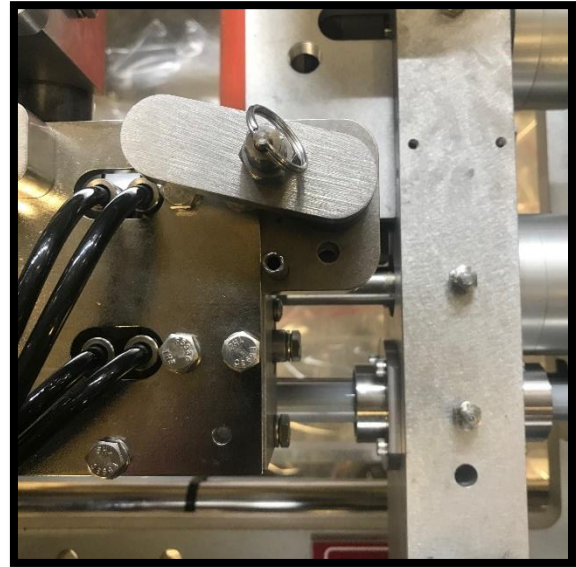
- THE BAG STRETCHER SHOULD BE SET TO PUT TENSION ON THE BAG WITHOUT OVER PULLING.
- THIS WILL BE DETERMINED BY THE TUBE SIZE INSTALLED.
- WITH GUSSET MANUALLY EXTENDED, ADJUST BAG STRETCHER VIA THE PLATE ON THE BACK SIDE OF THE CYLINDER UNTIL BAG IS BEING PULLED TIGHT.
- TAKE CARE NOT TO OVER TIGHTEN AS THIS WILL CAUSE YOU WRINKLES.
  - **GOOD**
  - **TOO TIGHT**
  - **TOO LOOSE**





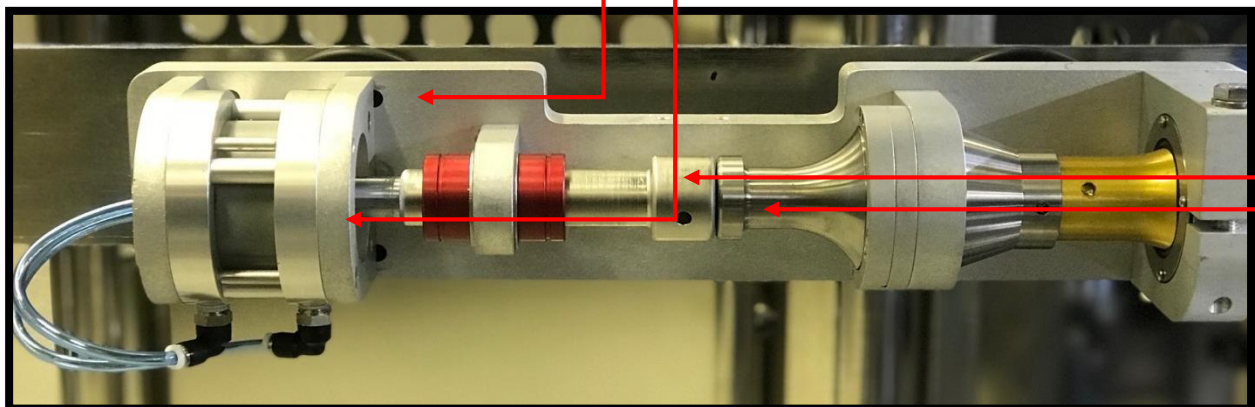
## CHECK THE ZIPPER WHEELS

- THE ZIPPER WHEELS SHOULD GRIP THE FILM DURING A FILM DRIVE AND RELEASE TENSION AFTER THE DRIVE ENDS.
- THE ZIPPER WHEELS OVERRIDE LEVER NEEDS TO BE IN THE OFF POSITION.
- INOPERABLE ZIPPER WHEELS WILL CAUSE TENSION WRINKLES.



## SET THE ULTRASONICS GAP

- THE GAP BETWEEN THE HORN AND ANVIL SHOULD BE .010.
  - MANUALLY EXTEND THE CYLINDER.
  - LOOSEN THE 5/16-18 BOLTS THAT SECURE THE CYLINDER SUPPORT TO THE ULTRASONICS SUPPORT.
  - PINCH FEELER GAUGE IN BETWEEN THE HORN AND ANVIL AN RE TIGHTEN.
- HORN
- ANVIL
- CYLINDER SUPPORTS
- ULTRA



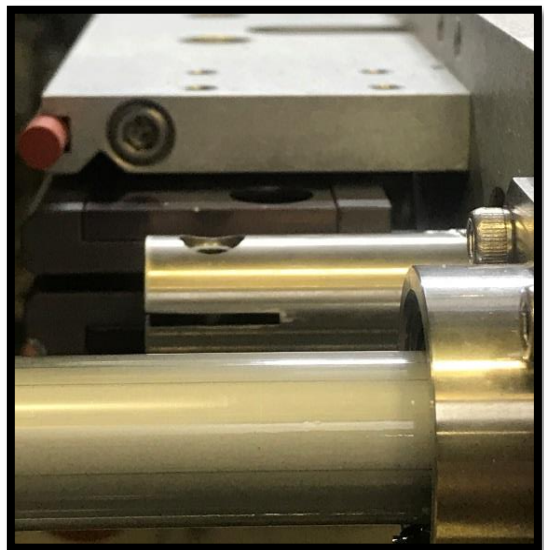
## ATTACH SKIRT TO THE TUBE

- SLIDE THE SKIRT ON THE BOTTOM OF THE TUBE.
- SKIRT NEEDS TO BE SLIT UP THE BACK TO ALLOW THE GUSSET TO OPERATE IN AND OUT.
- USE THE BAND PLIERS TO SECURE THE SKIRT.



## INSTALL THE CUTTER BLADE

- THE CUTTER BLADE SLIDES IN BETWEEN THE 2 PROFILES ON THE RIGHT HAND HEATER BAR.
- SLIDE THE BLADE INTO THE SLOTS IN THE STUDS.
- SECURE TO CYLINDERS USING THE KNIFE PINS ON FRONT AND BACK.





## TURN ON MAIN POWER.

- DISCONNECT IS LOCATED ON THE BACKSIDE OF THE ELECTRICAL CABINET
- AFTER POWER UP, ENSURE THAT THE **E-STOP** BUTTON IS PRESSED WHILE FINISHING SETUP.



**IT IS IMPORTANT TO FOLLOW YOUR COMPANY'S LOCK OUT/TAG OUT PROCEDURES WHILE WORKING ON A PACMAC VFFS BAGGING MACHINE.**

## TURN ON ALL HEATERS

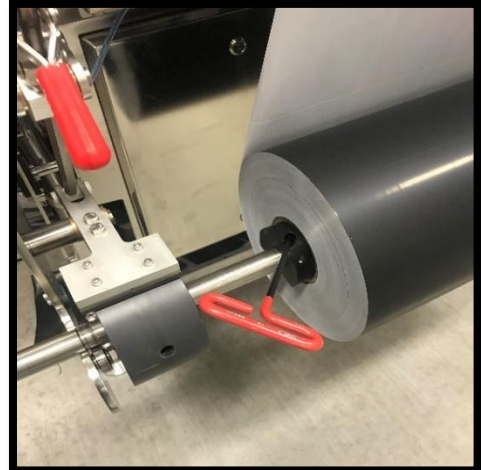
- THE HEATER SWITCHES ARE LOCATED ON THE FRONT OF THE MACHINE UNDER THE COMPUTER TOUCH SCREEN.





## LOAD THE FILM

- SLIDE THE FILM ROLL SHAFT THROUGH THE FILM CORE AND TIGHTEN DOWN USING A ¼" ALLEN WRENCH.
- ENSURE THE ROLL IS UNWINDING TOWARDS THE FRONT OF THE MACHINE.
- TIGHTEN BY TURNING ALLEN WRENCH A ¼" TURN COUNTER CLOCKWISE.



## CENTER THE FILM

- THE FILM SHOULD RIDE ON THE CENTER OF THE CARRIAGE.
- USING A ¼" T HANDLE, LOOSEN THE CHUCK AND SLIDE LEFT OR RIGHT TO CENTER.



## OPEN THE NIP ROLLER

- THE NIP ROLLER LEVER IS LOCATED BEHIND THE ELECTRICAL CABINET OF YOUR MACHINE.
- UP IS **(OPEN)**

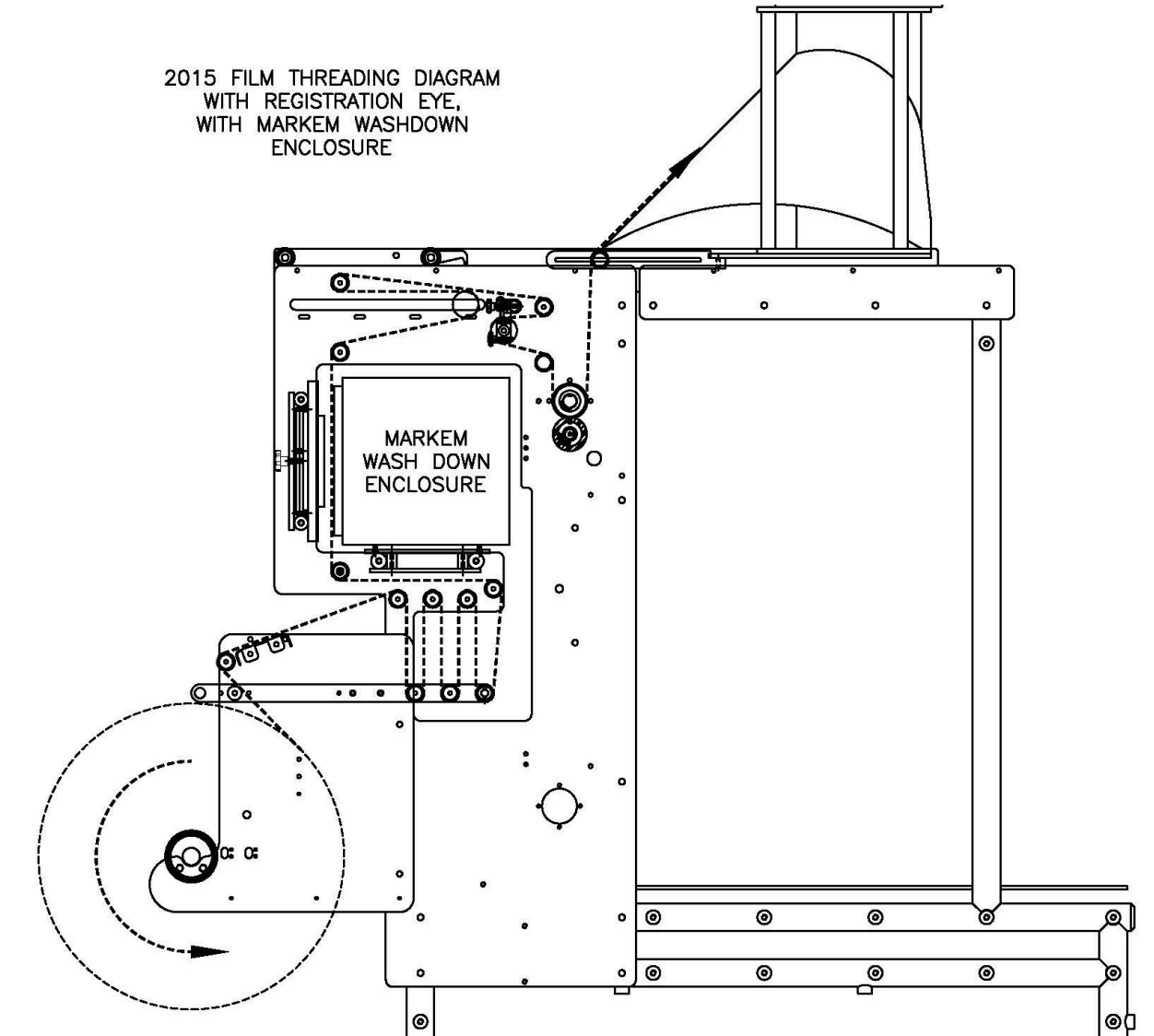




## FILM THREAD DIAGRAM

- THREAD THE FILM ALL THE WAY THROUGH TO THE PULL BELTS.

2015 FILM THREADING DIAGRAM  
WITH REGISTRATION EYE,  
WITH MARKEM WASHDOWN  
ENCLOSURE







## CLOSE THE NIP ROLLER

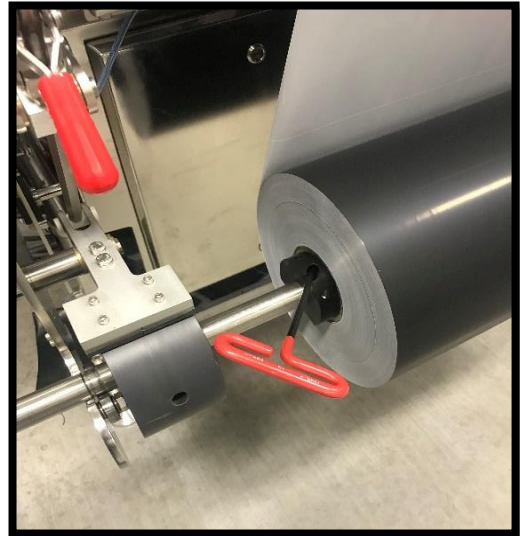
- DOWN IS (CLOSED)



## SET THE BRAKE

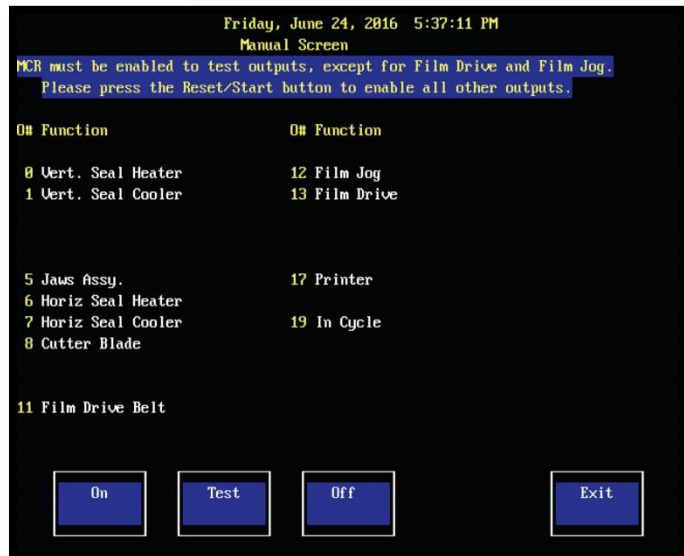
- ROLL THE FILM ROLL BACKWARDS TO RELEASE THE TENSION ON THE BRAKE.
- SET THE BRAKE BY PUSHING THE RED HANDLE DOWN.
  - UP IS NOT SET
  - DOWN IS SET

FOR MORE INFORMATION ON BRAKE ADJUSTMENTS PLEASE SEE PG 100



## TRACK THE FILM

- MANUALLY CLOSE THE PULL BELTS.
- CLOSE ALL DOORS.
- FROM THE MANUAL SCREEN, HIGHLIGHT FILM JOG.
- TOUCH THE JOG BUTTON AND WATCH THE FILM UNTIL IT IS NO LONGER TRACKING LEFT TO RIGHT AND IS CENTERED.
- USE THE FILM POSITION SWITCH FOR FINE ADJUSTMENTS.

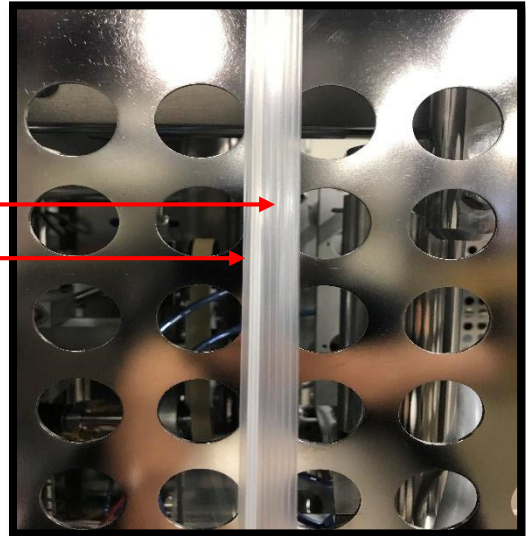


## PRINTED SETUP

- POSITION THE EYE ABOVE THE EYE MARK AND RUN PRINTED SETUP.
- FOR MORE INFORMATION ABOUT PRINTED SETUP SEE PG. 30.

## LOAD THE ZIPPER

- SLIDE THE SHAFT THROUGH THE ROLL OF FILM SO THAT THE ZIPPER FLANGES ARE TOWARDS THE FRONT OF THE MACHINE.
  - ZIPPER FLANGE
  - ZIPPER BEAD

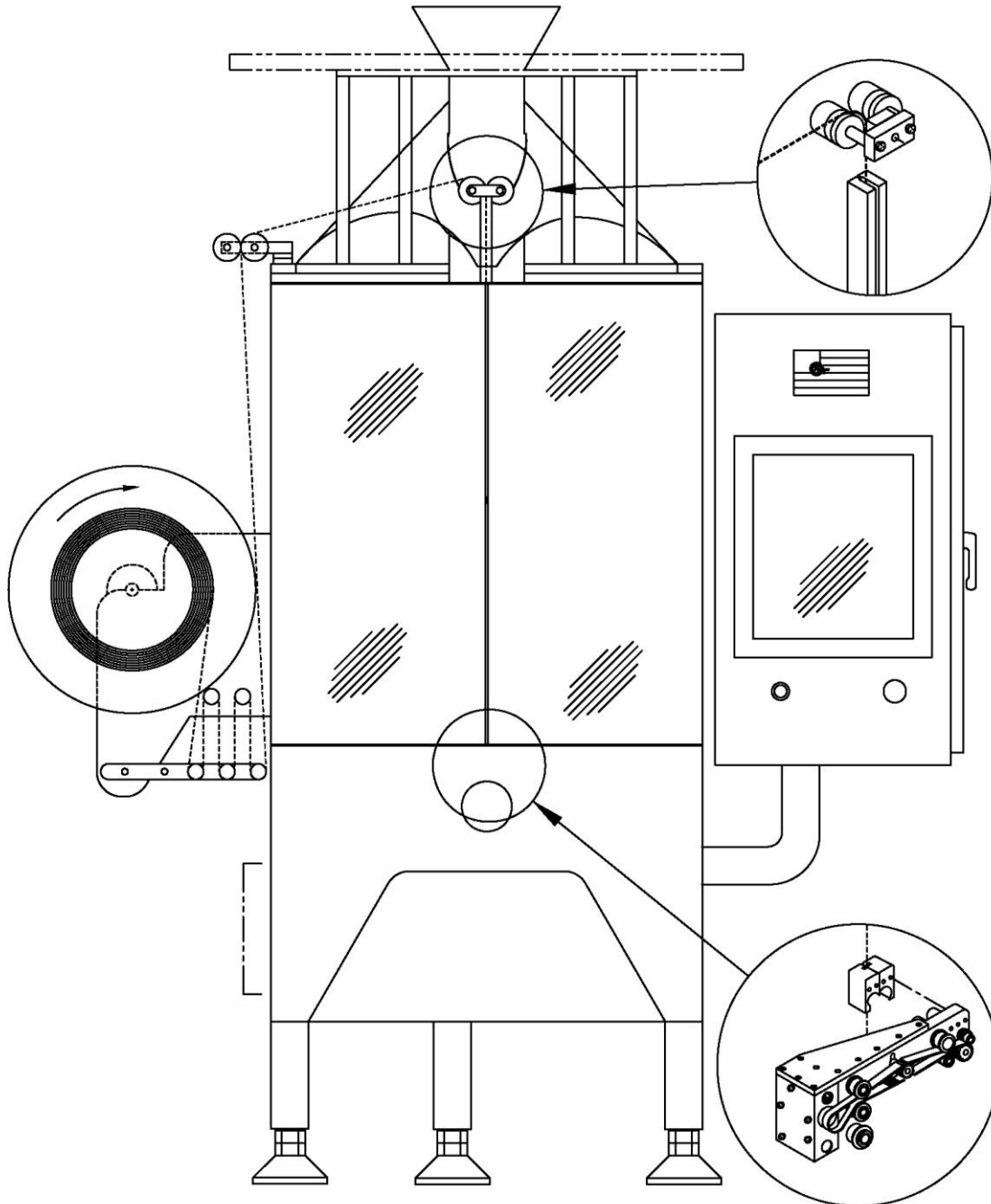


## ZIPPER GUIDE

- ENSURE THAT THE ZIPPER GETS THREADED INTO THE ZIPPER GUIDE CORRECTLY.
- THE ZIPPER BEAD NEEDS TO BE INSIDE THE GUIDE WITH THE ZIPPER FLANGES STICKING OUT THE FRONT AS SHOWN.

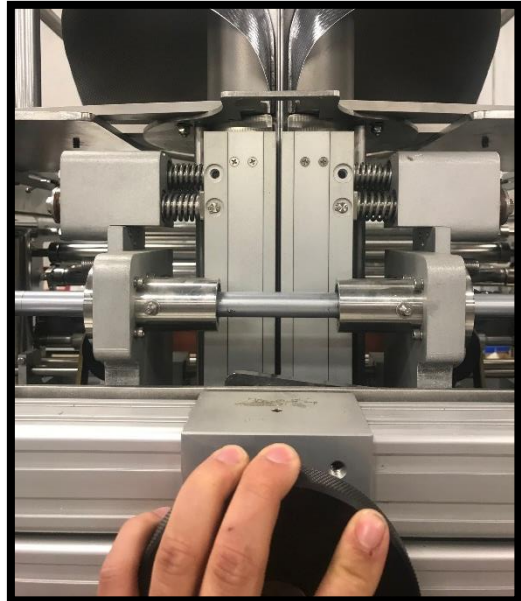


## THREAD THE ZIPPER



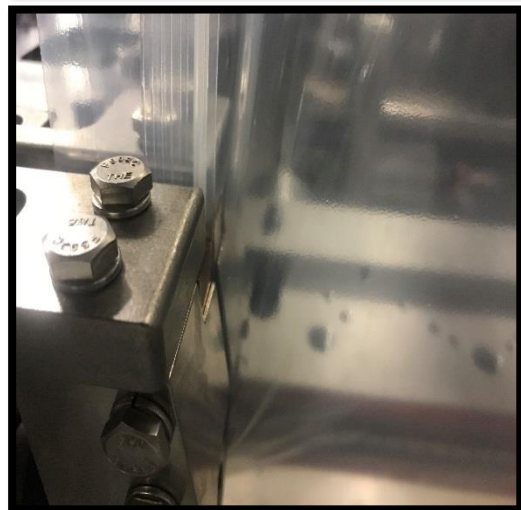
## MAKE A VERTICAL SEAL

- SEAL THE ZIPPER TO THE FILM BY MANUALLY CLOSING THE VERTICAL HEATERS VIA THE HAND WHEEL.
- ROTATE UNTIL THE BARS TOUCH AND LOCK OVER.
- HOLD FOR 2 SECONDS AND THEN OPEN.



## THREAD INTO BAG STRETCHER

- USING THE MANUAL HAND WHEEL ON THE BAG STRETCHER, THREAD THE FILM AND ZIPPER INTO THE BAG STRETCHER GUIDE.
- ENSURE ZIPPER BEAD IS ON THE INSIDE OF THE GUIDE AS SHOWN.
- MAKE ANOTHER VERTICAL SEAL.





## CLOSE DOORS AND RESET

- ALL DOORS AND COVERS MUST BE IN PLACE BEFORE THE MACHINE CAN BE RESET.
- RESET THE MACHINE BY PRESSING AND HOLDING THE GREEN RESET/START BUTTON.

## MAKE 5 BAGS

- ONCE THE DOORS ARE CLOSED SELECT EMPTY SINGLE AT THE BOTTOM OF THE SCREEN.
- THE MACHINE WILL MAKE AN EMPTY BAG EVERY TIME THE BUTTON IS PRESSED.
- USE THESE EMPTY BAGS TO CHECK SEALS, ULTRASONICS SMASH, AND OVERALL APPEARANCE OF THE BAG.





# PRINTED SETUP

## SELECT PRINTED FILM

- ENSURE THAT THE PROGRAM SELECTED IS SET TO "PRINTED FILM", THIS CAN BE FOUND ON THE RIGHT HAND SIDE OF THE CHANGE SETTINGS SCREEN.

**PRINTED FILM**



## CENTER THE EYE OVER

- ENSURE THAT THE EYE IS CENTERED OVER THE EYE MARK ON THE FILM.
- THIS CAN BE FOUND BEHIND THE NIP AND DRIVE ROLLER.

## TEACH THE EYE

- HOLD THE BUTTON FOR 3 SECONDS OVER THE FILM BACK GROUND.
- THEN, HOLD FOR 3 SECONDS OVER THE EYE MARK OF THE FILM.
  - EYE MARK**
  - BACK GROUND**





## **PM SCHEDULE**

- **DAILY**

- CHANGE HORIZONTAL HEATER BAR TAPE
- CLEAN THE KNIFE BLADE GROOVES
- CLEAN THE KNIFE BLADE
- CHECK WIRE CONNECTIONS
- CHANGE GRIPPER CORDS

- **WEEKLY**

- CHANGE VERTICAL HEATER BAR TAPE
- GREASE ALL GREASE ZERKS WIPING OFF EXCESS GREASE
- REPLACE 2" WIDE TAPE ON TUBE IF APPLICABLE
- CLEAN NIP AND DRIVE ROLLER
- CLEAN PULL BELTS
- TEST ALL ASSEMBLIES FOR PROPER FUNCTION AND AIR LEAKS
- CHECK JAW MAYME LEVER BEARINGS FOR SLACK

- **MONTHLY**

- INSPECT PULL BELT AND DRIVE ROLLER TRANSMISSION FOR BAD BEARINGS, AND WORN OR LOOSE BELTS
- CHECK OIL LEVEL IN THE GEAR BOX (FILM DRIVE AND JAW)
- CHECK FOR BROKEN SPRINGS ON VERTICAL HEATER, FILM SPLICER, BRAKE TENSIONER, ETC

- **6 MONTHS**

- REBUILD ROTARY ACTUATOR ON VERTICAL HEATER
- CHECK ALL JAW BEARINGS FOR EXCESSIVE SLACK
- CHECK FOR A GAP BETWEEN THE NIP AND DRIVE ROLLER ADJUST TENSIONING SPRINGS AS NEEDED
- CHECK FOR WEAR ON BRAKE BADS
- CHECK ALL PNEUMATIC COMPONENTS FOR LEAKS.



## **DUTY CYCLES**

ONCE A WEEK AFTER PMS THE MACHINE SHOULD BE DUTY CYCLED TO TEST THE OVERALL OPERATION OF THE MACHINE.

- CLOSE ALL DOORS
- PRESS THE RESET/START BUTTON
- FROM THE RUN SCREEN, GO TO THE MANUAL SCREEN
- HIGHLIGHT PULL BELTS
- SELECT OUT, THE PULL BELTS SHOULD MOVE WAY FROM THE TUBE
- EXIT THE MANUAL SCREEN
- GO TO THE MACHINE STATS PAGE
- RESET THE DAILY LOGGED VALUES
- EXIT THE MACHINE STATS PAGE
- HIGHLIGHT EMPTY CONTINUOUS AT THE BOTTOM OF THE RUN SCREEN
- HIT THE RESET/START BUTTON AGAIN AND THE MACHINE WILL BEGIN TO CYCLE
- CYCLE THE MACHINE 1000 CYCLES. KEEP TRACK WITH YOUR PROGRESS USING THE MACHINE STATS PAGE.





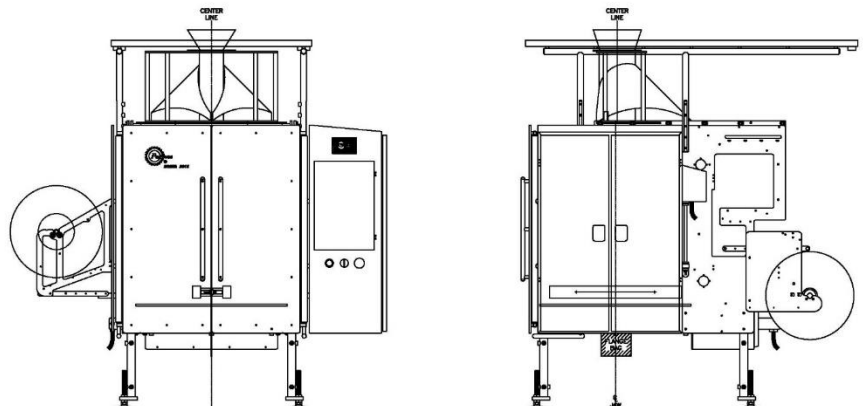
## MACHINE SPECIFICATION AND INSTALLATION

### STANDARD FEATURES

- MOSTLY HEAVY DUTY STAINLESS STEEL WITH SOME ANODIZED ALUMINUM WASHDOWN CONSTRUCTION.
- PRODUCT DRIP PANS FULLY COVERING THE FILM PATH.
- PRINT REGISTRATION SYSTEM.
- SEMI AUTOMATIC FILM TRACKING.
- HEATED SEAL BAR FILM SPLICER.
- BAG SEAL COOLERS.
- INTERFACES WITH ALL SCALES AND FILLERS.
- SLIDING TUBE AND JAW ASSEMBLY.
- USER-FRIENDLY ETHERNET CAPABLE TOUCHSCREEN COMPUTER CONTROL.
- LOW FILM SENSOR.
- USDA APPROVED.
- SAFETY GUARD DESIGN.
- CATEGORY 3 SAFETY SWITCHES FOR DOORS.
- OPEN ARCHITECT SANITARY DESIGN.

### MACHINE PLACEMENT

- THE PACMAC MUST BE SET CENTERED UNDERNEATH THE FILLER (I.E. SCALE/CONVEYOR) SO THAT THE PRODUCT DROPPING OUT FALLS DOWN THE CENTER OF THE FORMING TUBE ASSEMBLY. ALLOW ADEQUATE SPACE AROUND THE MACHINE SO THAT THE DOORS CAN BE OPENED FULLY AND THE FILM AND ZIPPER CAN BE LOADED.





### **VOLTAGE REQUIREMENTS**

- 208-240 VAC 50AMP

### **AIR REQUIREMENT**

- 100-120 PSI 50CFM
- MINIMUM PIPE SIZE 3/4" ISD (INSIDE DIAMETER) PIPE.

### **MACHINE INTERFACE MODES**

THE PACMAC HAS THE ABILITY TO INTERFACE WITH A NUMBER OF DIFFERENT SCALES AND VOLUMETRIC FILLERS.

**MASTER:** USED PRIMARILY WITH AN OVERHEAD SCALE. ALLOWS THE OPERATOR TO HAVE AN ADJUSTABLE OUTPUT PULSE.

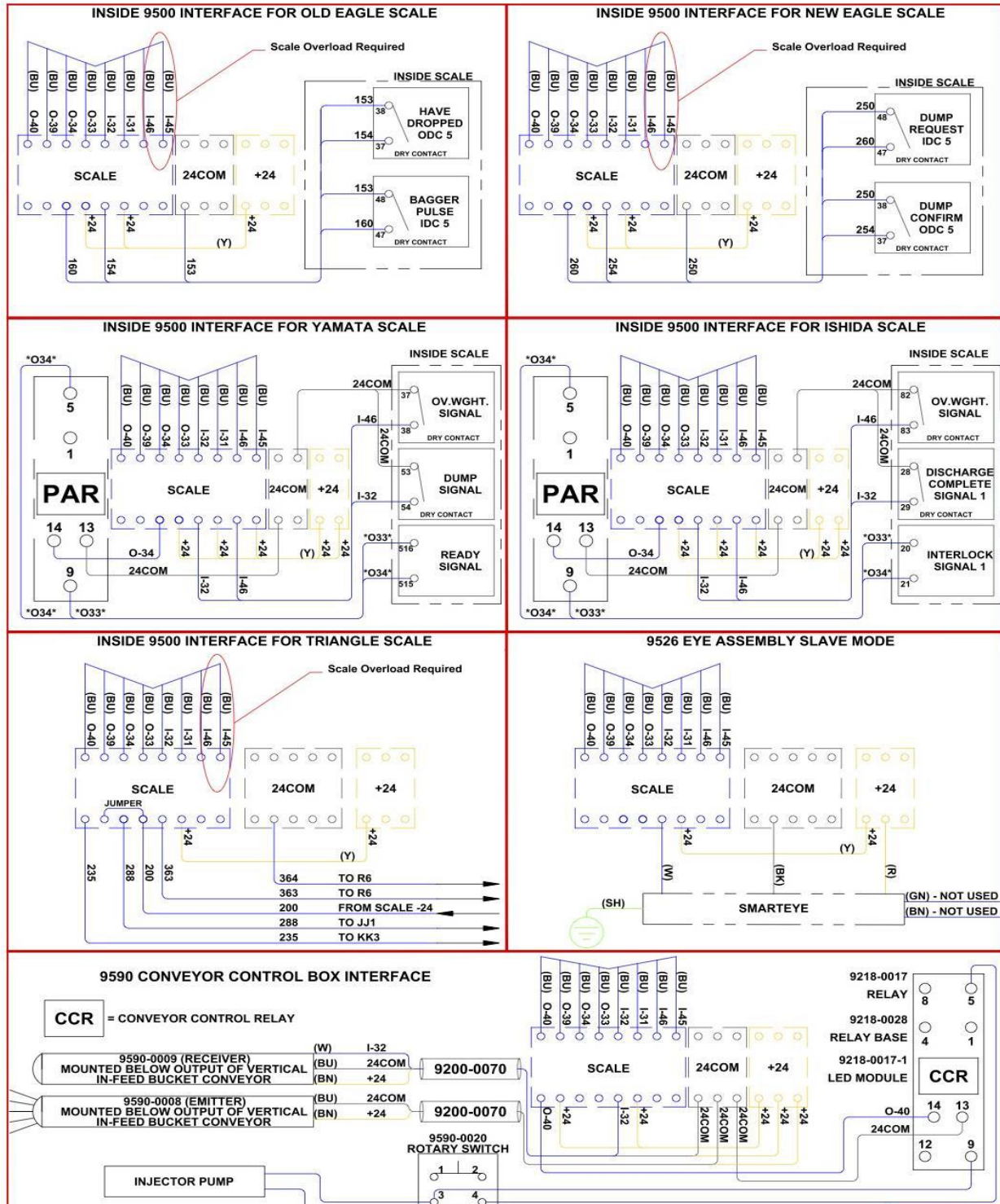
**SLAVE:** USED PRIMARILY WITH AN INCLINE CONVEYOR. THE MACHINE SITS IDLE UNTIL PRODUCT PASSES BY THE INFEED EYES. THE EYES WILL SIGNAL THE MACHINE TO CYCLE.

**STROBE:** ALLOWS THE OPERATOR TO HAVE AN ADJUSTABLE OUTPUT PULSE ON ADDITON TO A CYCLE START DELAY TIMER.

**BOD:** ALLOWS THE OPERATOR TO HAVE AN ADJUSTABLE OUTPUT SIGNAL AND A CYCLE START DELAY TIMER. THE SIGNAL WILL BE SENT ONCE ON MACHINE CYCLE START AND WILL NOT BE SENT AGAIN UNTIL THE MACHINE CYCLES.

**SYNCHRO:** USED WHEN 2 PACMAC MACHINES ARE DROPPING ONTO THE SAME CONVEYOR. THIS MODE ALLOWS THE USER TO PREVENT BAGS FROM STAKING ON TOP OF EACH OTHER AS THE UPSTREAM BAGS PASS UNDERNEATH THE DOWN STREAM MACHINE. UP STREAM MACHINE IS SET TO SYNCHRO WHILE THE DOWN STREAM MACHINE IS SET TO SLAVE. REQUIRES ADDITIONAL COMPONENTS PURCHASED FROM PACMAC.

# INTERFACE WIRING



PG. 027.1

REVISIONS			
A	ADD SCALE OVERLOAD	5.22.15	CH

9518PM UL WIRE DIAGRAM			
A	SCALE INTERFACE BY MANUFACTURER	5.22.15	CH



## **SAFETY PLC**

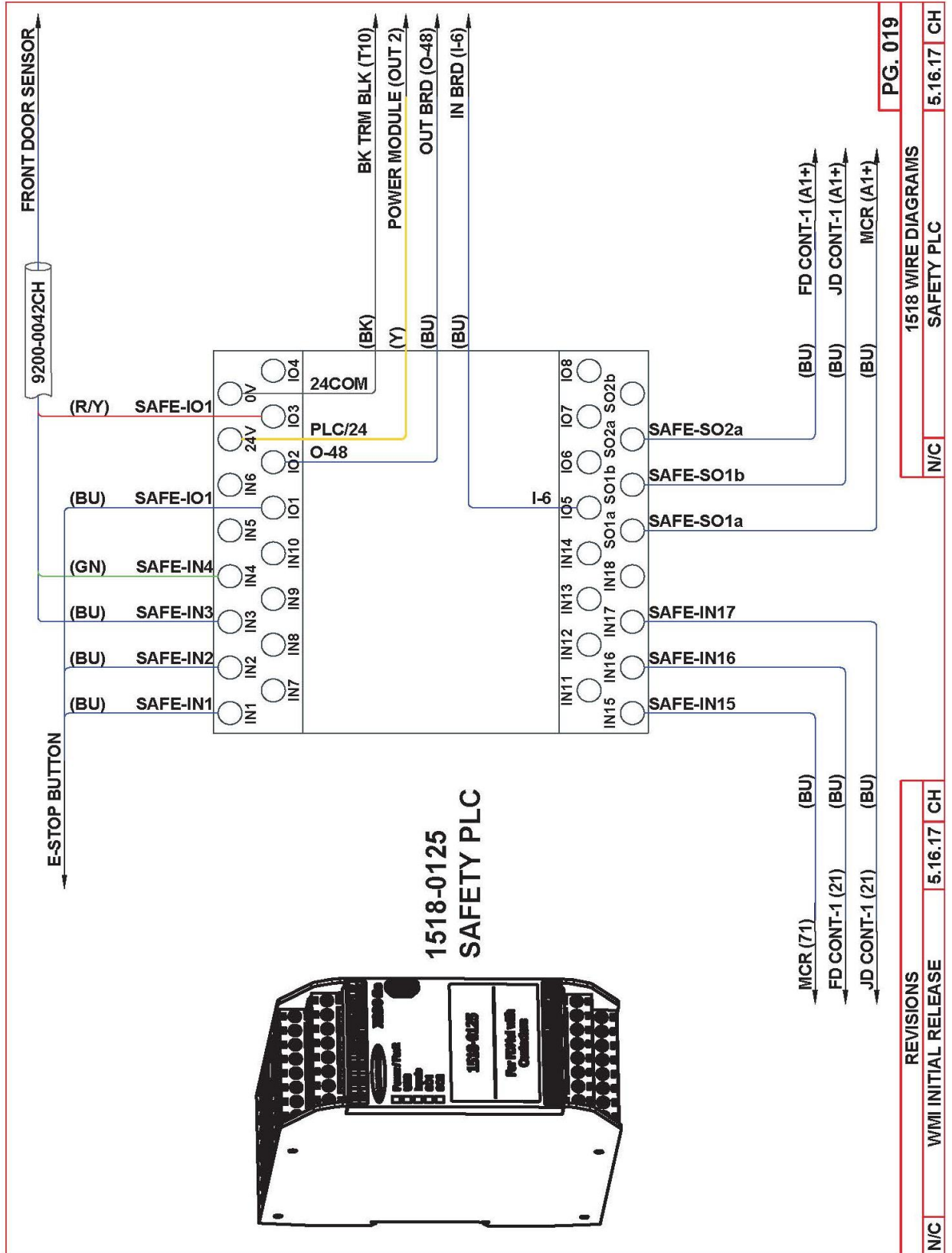
WHEN THE MACHINE IS IN ANY E-STOP CONDITION, THE FILM DRIVE AND JAW DRIVE SERVO CONTROLLERS ARE DISABLED BY REMOVING THE COMMON FROM THE ENABLE CIRCUIT THROUGH THE SAFETY PLC.

TO ACTIVATE THE FILM DRIVE SERVO CONTROLLER THE OPERATOR MUST ACTIVATE (S02) ON THE SAFETY PLC. THIS IS DONE BY PULLING OUT THE E-STOP BUTTON. (S02) ALSO ACTIVATES A SET OF MOTOR CONTACTORS THAT MECHANICALLY BREAK THE MOTOR POWER CABLE FROM THE CONTROLLER POWER SOURCE.

TO ACTIVATE THE JAW DRIVE SERVO CONTROLLER THE OPERATOR MUST ACTIVATE (S01) ON THE SAFETY PLC. THIS IS DONE BY PRESSING THE RESET/START BUTTON. IF THE SAFETY PLC IS SATISFIED IT WILL ENABLE THE MCR RELAY ALLOWING THE JAW DRIVE SERVO CONTROLLER ENABLE TO REACH THE CONTROLLER. (S01) ALSO ACTIVATES A SET OF MOTOR CONTACTORS THAT MECHANICALLY BREAK THE MOTOR CABLE FROM THE CONTROLLER POWER SOURCE

TO SATISFY THE SAFETY PLC THE FRONT AND BACK DOOR (9500) SENSORS MUST BE MADE. THE PLC SEND A CHECK TO ENSURE THAT THE FRONT AND BACK SENSORS, AND THE MCR RELAY HAVE NOT BEEN ELCTRICALLY BYPASSED. WHEN THE RESET/START BUTTON IS PRESSED, IF ALL IS SATISFIED ON THE SAFETY PLC, THE MACHINE WILL BE ALLOWED TO RESET.

IN CLOSING, WHILE THE E-STOP BUTTOM IS PRESSED (S01 AND S02) ON THE SAFETY PLC ARE BOTH IN A FAULTED STATE. THIS CAUSES BOTH THE FILM DRIVE AND JAW DRIVE SERVO CONTROLLERS TO LOSE THEIR ENABLE CIRCUIT THAT PASSES THROUGH THE SAFETY PLC, MECHANICALLY BREAKING THE MOTOR FROM THEIR POWER SOURCE AND DISABLES THE MCR, EXHAUSTING OUT ALL AIR.

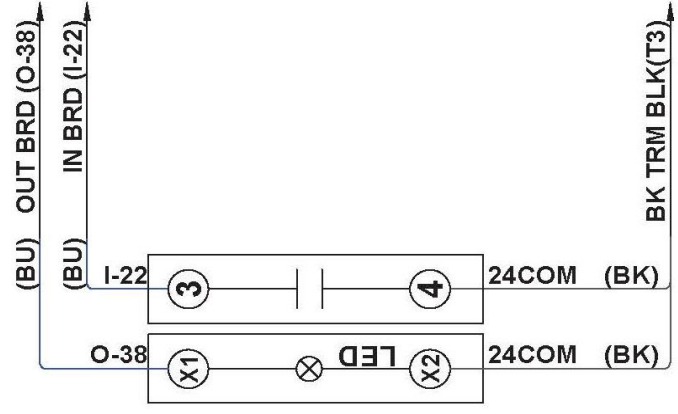
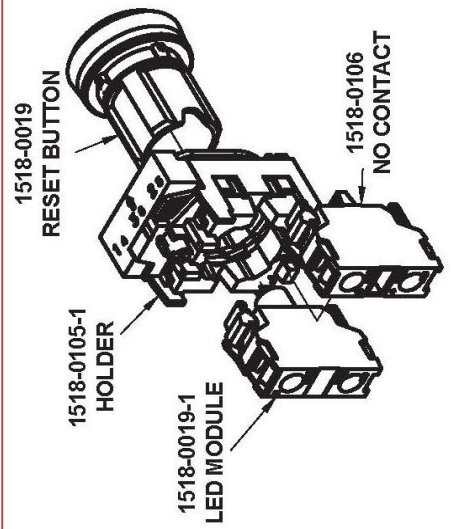
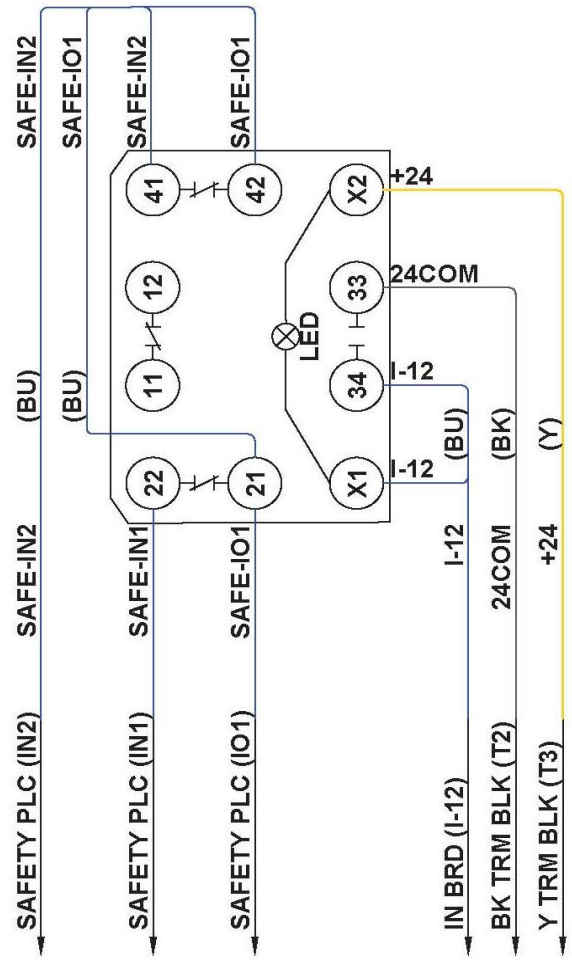
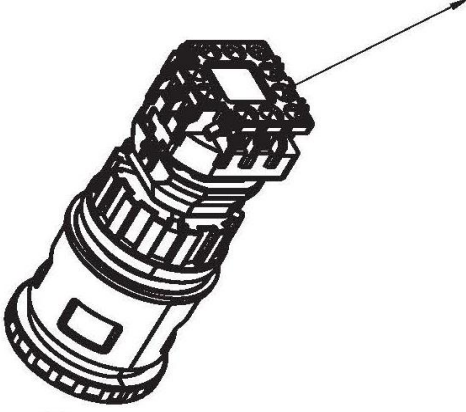


PG. 019

1518 WIRE DIAGRAMS	
N/C	SAFETY PLC
5.16.17	CH

REVISIONS	
WMI	INITIAL RELEASE
5.16.17	CH

9218-0008UL2  
E-STOP BUTTON



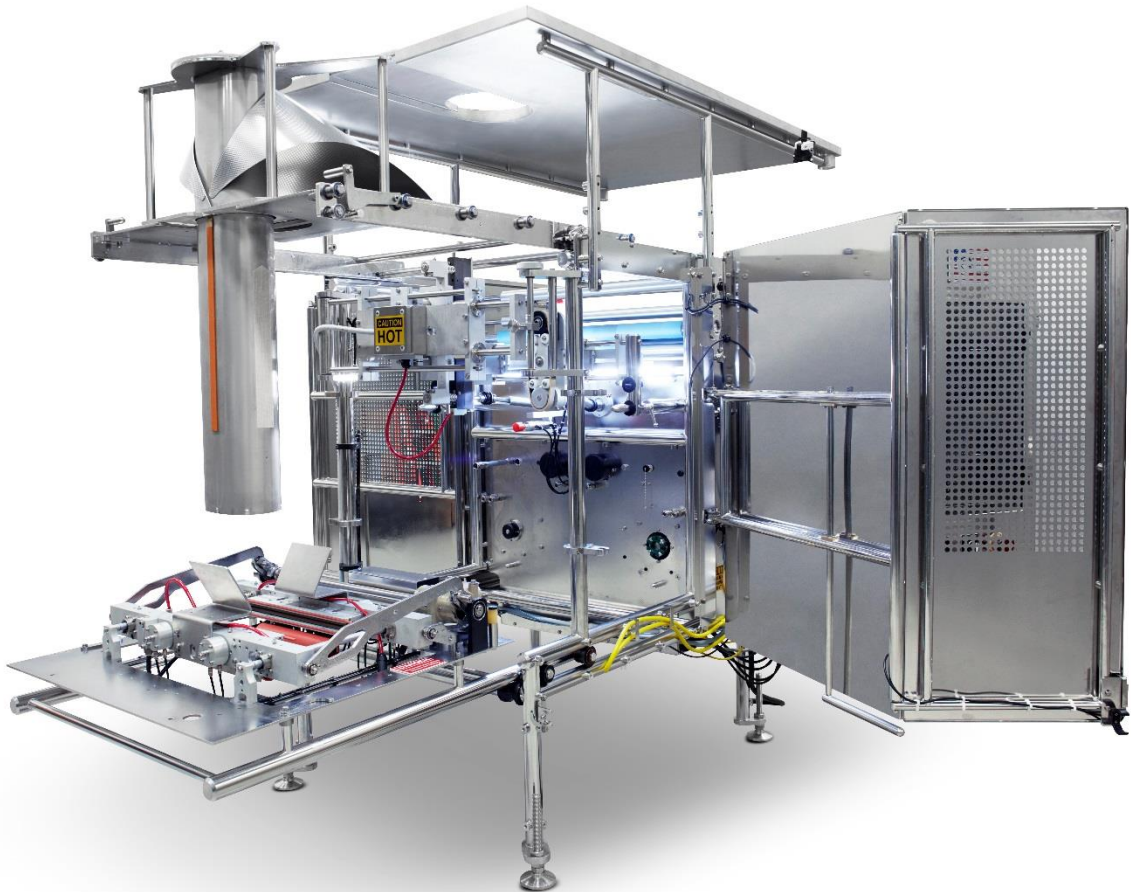
PG. 020	
1518 WIRE DIAGRAMS	
N/C	RESET/E-STOP BUTTON WIRING 5.16.17 CH

REVISIONS	
N/C	INITIAL RELEASE 5.16.17 CH



## WASHDOWN

- POWER DOWN THE MACHINE VIA THE MAIN POWER DISCONNECT ON THE BACKSIDE OF THE CABINET.
- ENSURE THAT ELECTRICAL CABINET DOORS ARE CLOSED FULLY AND LOCKED.
- FULLY OPEN UP MACHINE SIDE PANELS AS SHOWN.



- REMOVE HORIZONTAL HEATER BARS AND KNIFE BLADE.
- WASHDOWN AVOIDING HIGH PRESSURE WATER AROUND ELECTRICAL CONNECTIONS.
- FULLY CLOSE MACHINE AFTER DRYING.